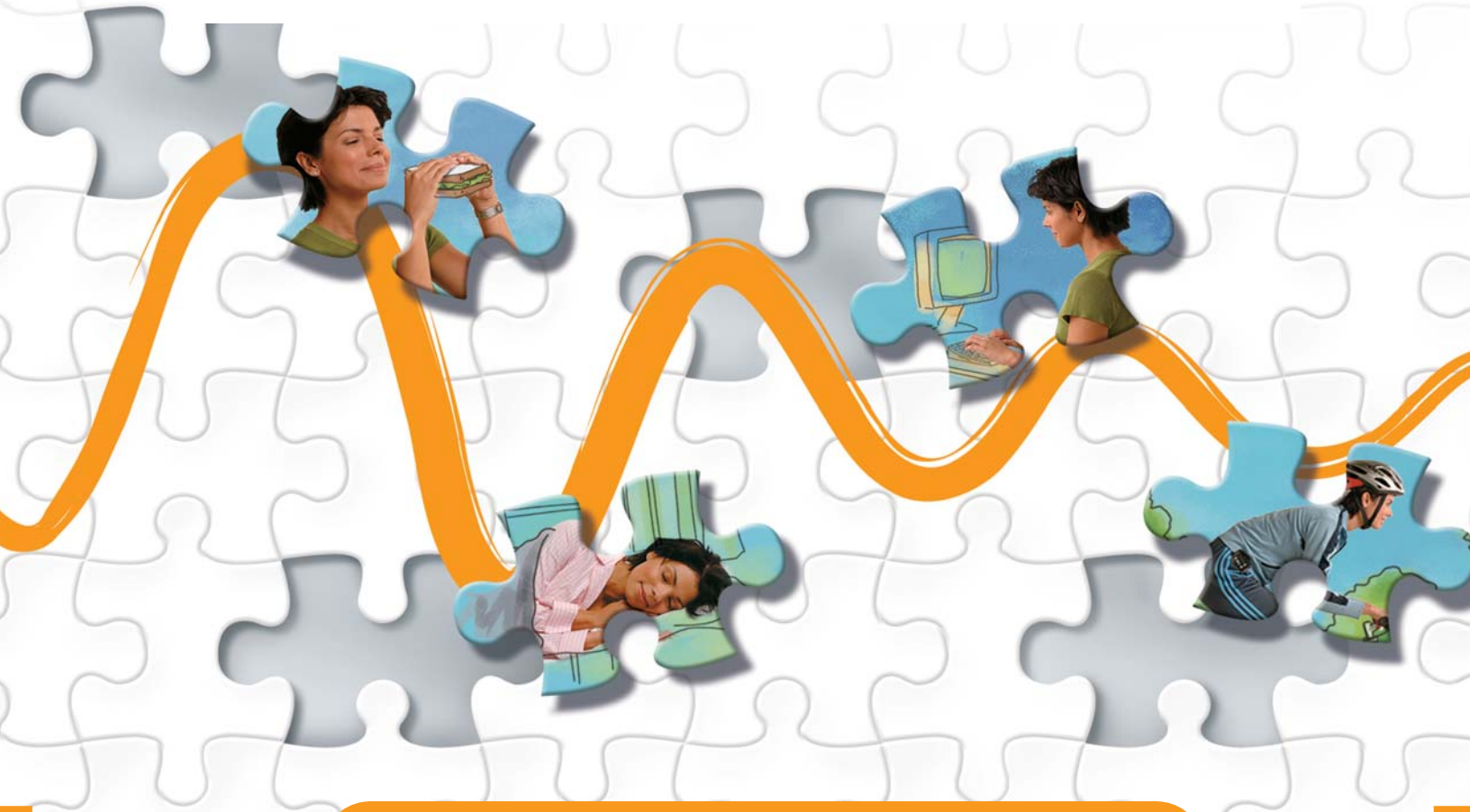
CareLink™ PERSONAL

THERAPY MANAGEMENT SOFTWARE FOR DIABETES



User Guide

Medtronic

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Chapter 1: Introduction

- *Overview*
- *Supported devices*
- *User safety*
- *Assistance*

Overview

CareLink™ Personal is a Web-based system designed to help you manage your diabetes. It has many key features:

- It copies (uploads) data from your devices: insulin pump, continuous glucose monitor, and supported blood glucose meters.
- Device data is stored on a networked database.
- There is an online logbook where you can record self-reported information, such as how many carbohydrates you ate.
- Uploaded data and other information stored on the system can be viewed through several different types of treatment reports.
- Access to data and personal information on this system is secure.

Reports

Reports show you data gathered from your device(s), and from what you directly entered into the system. Examples of the report data you can get include:

- Pump operation, such as alarm settings and maximum allowed bolus amount.
- Insulin delivery rates, types and times.
- Blood glucose reading levels and times.
- Sensor glucose reading levels and times.
- Bolus Wizard® or online logbook entry data.

Reports are displayed in PDF format. They can be viewed online, saved, or printed.

You can share your reports with your healthcare professional. They can use reports to determine if and how your treatment regimen should be adjusted.

Logbook

The logbook allows you to enter the following self-reported information:

- Carbohydrates eaten
- Exercise activity
- Urine ketone results
- HbA1c results
- Infusion set changes

The data from your logbook is used in the reports you create. You can see how, for example, your carbohydrate intake compares to blood glucose levels for the same day or time. You can also use it as an online diary of your diabetes management.

Secure access

Entry into the system is secure. It requires the use of a username and password that is unique to you. Do not give away your username and password. This way, no one else will be able to log in and see your information.

Also, the system uses Secure Sockets Layers (SSL) technology, which encrypts data during transmission.

Supported devices

The following devices are supported for use with this system.

Note: *Some devices supported by this system may not be available in all countries where this system is approved for use.*

- Supported insulin pumps:
  - Medtronic MiniMed Paradigm model series pumps - 515, 715, 522, 722, 522K and 722K (U.S. only)
- Supported continuous glucose monitors:
  - Medtronic Guardian® REAL-Time Continuous Glucose Monitoring System

- Supported glucose meters:
  - Paradigm Link™ Blood Glucose Monitor
  - BD Logic™
  - LifeScan
    - OneTouch® Profile®
    - OneTouch® Ultra®
    - OneTouch® Ultra® 2
    - OneTouch® UltraSmart®
    - OneTouch® Basic®
    - OneTouch® Fast*Take*®
    - OneTouch® SureStep®
  - Bayer
    - Ascensia® BREEZE™
    - Ascensia® CONTOUR™
  - Bayer Ascensia® DEX® family, including the following compatible meters:
    - Ascensia® DEX®
    - Glucometer® DEX®
    - Ascensia® DEX® 2
    - Glucometer® DEX® 2
    - Ascensia® DEXTER-Z® II
    - Glucometer® DEXTER-Z®
    - Ascensia® ESPRIT® 2
    - Glucometer® ESPRIT®
    - Glucometer® ESPRIT® 2
  - Bayer Ascensia ELITE™ family, including the following compatible meters:
    - Ascensia ELITE™ XL
    - Glucometer ELITE® XL
  - Precision Xtra™
  - TheraSense FreeStyle®, FreeStyle Flash™

- The Medtronic MiniMed Com-Station, for uploading pass-through third party meters. See the Com-Station User Guide for details about the required hardware.
- Medtronic MiniMed ComLink, for uploading the Medtronic MiniMed Paradigm Pump or the Guardian REAL-Time CGM System. See the ComLink User Guide for details about the required hardware.
- Data communications cable for uploading data from third-party blood glucose meters. Each meter manufacturer supplies a data communications cable.

Equivalent devices

The **Bayer Ascensia® DEX®** is equivalent to and compatible with the following meters. It may be selected during an upload for any of them:

- Bayer Ascensia® DEX® 2
- Bayer Glucometer® DEX®
- Bayer Glucometer® DEX® 2
- Bayer Ascensia® DEXTER-Z®
- Bayer Glucometer® DEXTER-Z®
- Bayer Ascensia® ESPRIT® 2
- Bayer Glucometer® ESPRIT®
- Bayer Glucometer® ESPRIT® 2

The **Bayer Ascensia ELITE™ XL** is equivalent to and compatible with the following meter. It may be selected during an upload for it:

- Bayer Glucometer ELITE® XL

User safety

Indications for use

CareLink Personal is intended for use as a tool to help control diabetes. The purpose of this system is to take information transmitted from insulin pumps, continuous glucose monitors and glucose meters, and logbook data entered by the patient, and turn it into CareLink Personal reports. The reports provide information that can be used to identify trends and track daily activities; such as carbohydrates eaten, meal times, insulin delivery, and blood glucose readings.

Warnings

- This system is intended to be used together with advice from a healthcare professional familiar with the diagnosis and treatment of diabetes.
- You should be monitoring your blood glucose levels at least 4 - 6 times a day.
- This system is not intended to provide medical advice and should not be relied upon for such purpose.
- Do not make any changes to your treatment without talking to your healthcare professional first.

Contraindications

None known

Assistance

If you need further help with this system, contact one of the following resources.

U.S. and Canada

Medtronic MiniMed provides a number to call for residents of the United States and Canada for guidance with software problems. The hours are **Monday through Friday from 8:00 a.m. to 5:00 p.m. Pacific Standard Time.**

Department	Telephone number
24 Hour HelpLine, if calling from within the United States and Canada	(800) 646-4633 800-MiniMed
24 Hour HelpLine if calling from outside the United States and Canada	818-576-5555
MiniMed Web site	www.minimed.com

Outside the U.S. and Canada

For assistance for residents of regions outside the United States or Canada, please contact your local country representative.

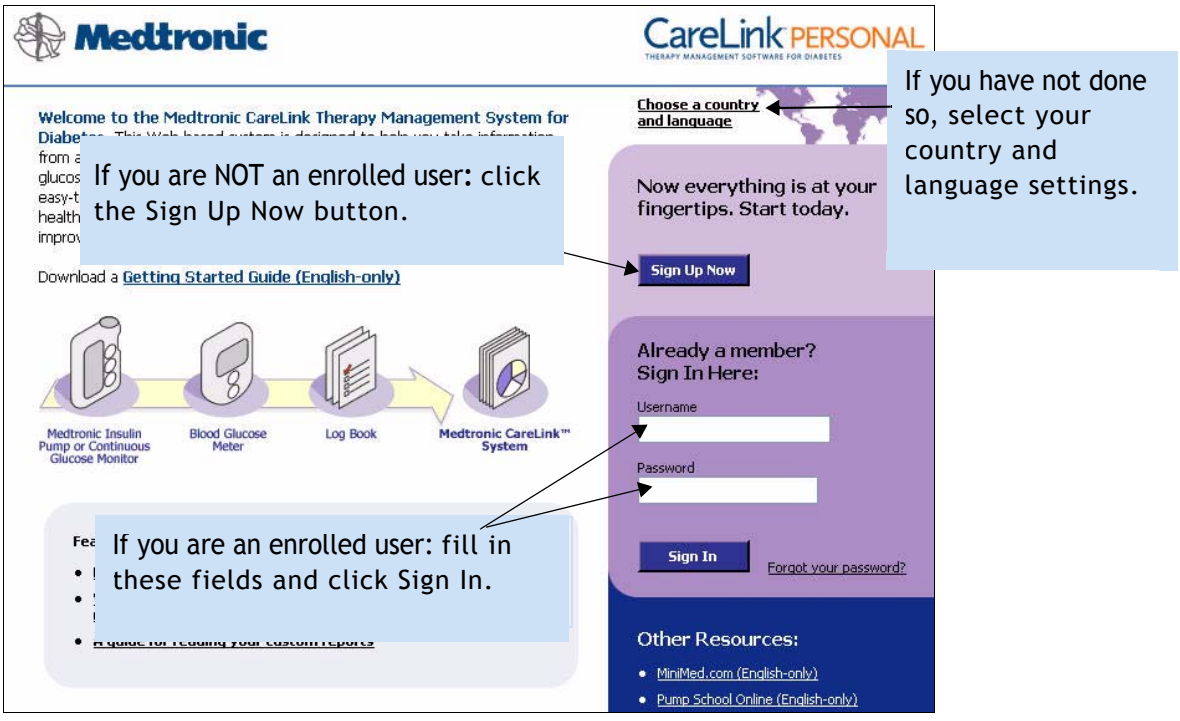
Chapter 2:
Navigational tips

- *The Welcome screen*
- *Common links*
- *Screen tabs*
- *Using buttons, links and fields*

The Welcome screen

Note: *The system screens may vary slightly from the examples shown in this user guide.*

This screen displays each time you enter the system, log off, or time out. It allows you to safely sign in to the system, and choose country and language.


Medtronic
CareLink PERSONAL
Welcome to the Medtronic CareLink Therapy Management System for
Choose a country and language
If you have not done so, select your country and language settings.
If you are NOT an enrolled user: click the Sign Up Now button.
Now everything is at your fingertips. Start today.
Sign Up Now
Download a Getting Started Guide (English-only)
Medtronic Insulin Pump or Continuous Glucose Monitor
Blood Glucose Meter
Log Book
Medtronic CareLink™ System
Already a member? Sign In Here:
Username
Password
If you are an enrolled user: fill in these fields and click Sign In.
Sign In
Forgot your password?
Other Resources:
MiniMed.com (English-only)
Pump School Online (English-only)

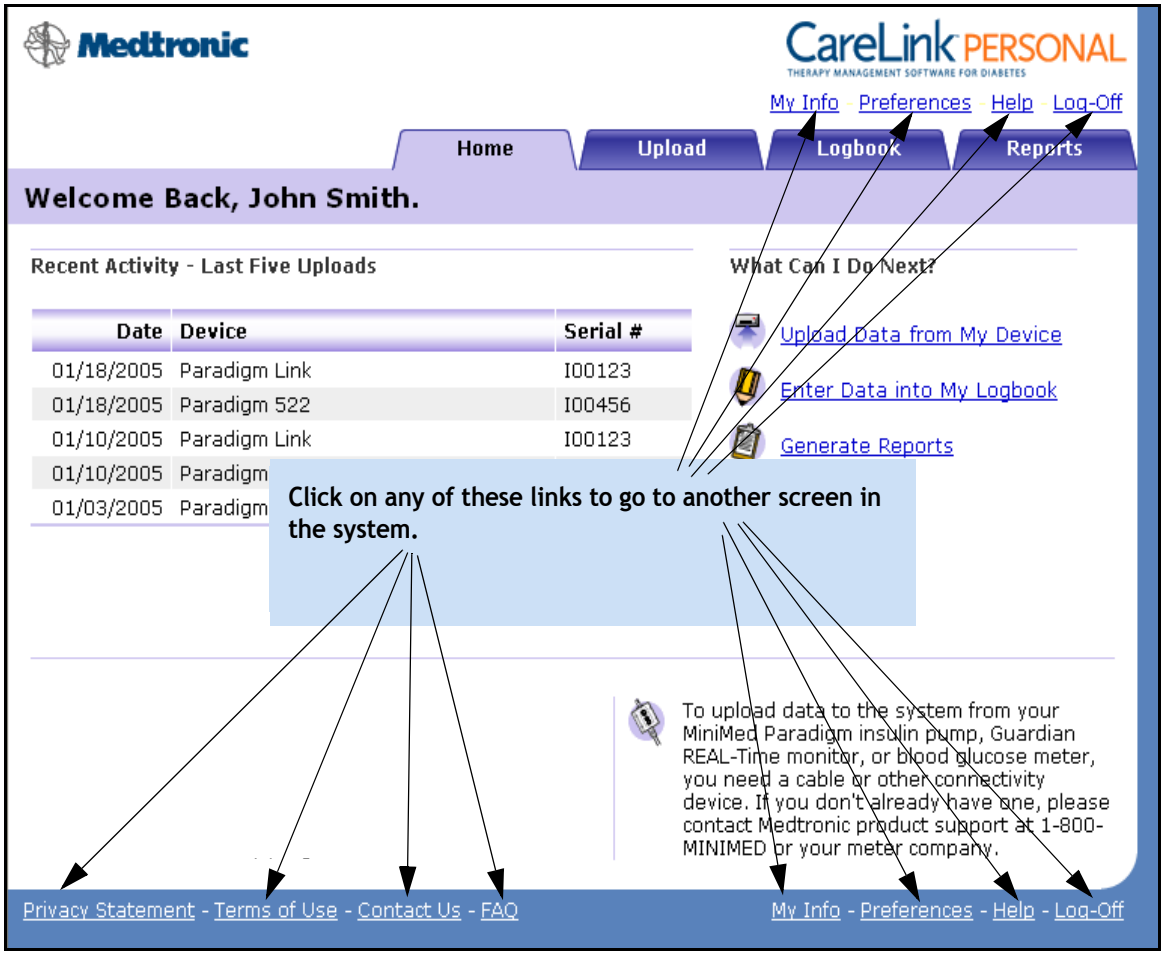
Note: *The chapter "Getting started" on page 12 has details on enrolling and logging in.*

Common links

Nearly all of the system screens display links (underlined words) near the top and bottom of the screen. Links take you to other screens in the system. The name of the link tells you which screen displays when you click on it.

Note: *Log-Off takes you to the Welcome screen.*

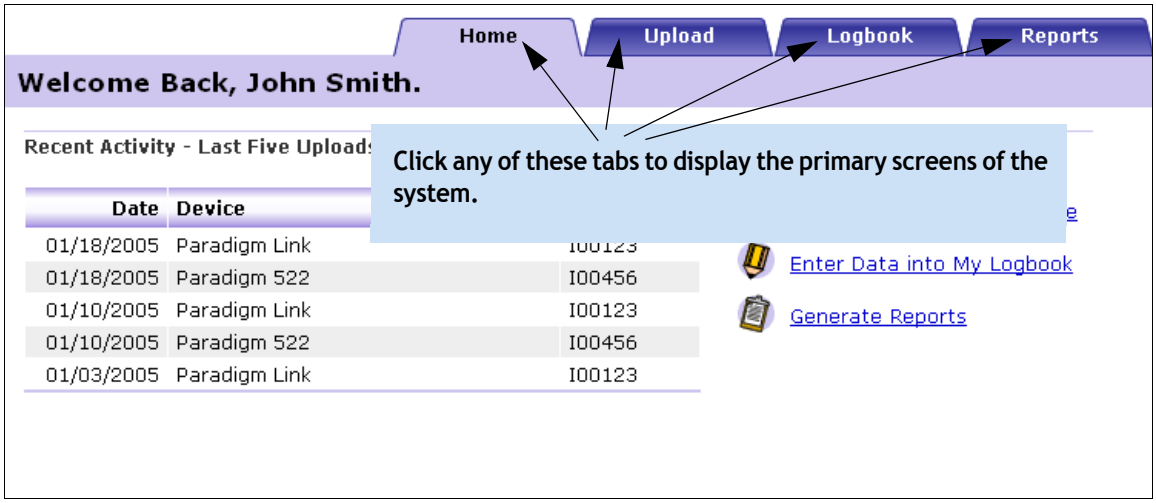
To display a linked screen, click on any part of the underlined link name.


Medtronic
CareLink PERSONAL
THERAPY MANAGEMENT SOFTWARE FOR DIABETES
My Info Preferences Help Log-Off
Home
Upload
Logbook
Reports
Welcome Back, John Smith.
Recent Activity - Last Five Uploads
Date
Device
Serial #
01/18/2005 Paradigm Link I00123
01/18/2005 Paradigm 522 I00456
01/10/2005 Paradigm Link I00123
01/10/2005 Paradigm
01/03/2005 Paradigm
What Can I Do Next?
Upload Data from My Device
Enter Data into My Logbook
Generate Reports
Click on any of these links to go to another screen in the system.
To upload data to the system from your MiniMed Paradigm insulin pump, Guardian REAL-Time monitor, or blood glucose meter, you need a cable or other connectivity device. If you don't already have one, please contact Medtronic product support at 1-800-MINIMED or your meter company.
Privacy Statement - Terms of Use - Contact Us - FAQ
My Info - Preferences - Help - Log-Off

Screen tabs

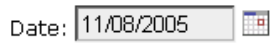
Tabs appear near the top of all the system screens. They allow you to quickly get to the main system screens.

To get to the screen named on the tab, simply click the tab.



Using buttons, links and fields

The following table describes the various system buttons, links or fields you will see in the system, and the type of action they require. Becoming familiar with these should make it easier for you to use this system.

Button, Link or Field	Action
Upload Data from My Device	Click this type of link on the Home screen to go to another screen on the system. The new screen allows you to do the listed action.
Change password	Click this type of link to go to a screen and do the listed action or display the listed information.
	Click to edit the logbook entry on the same row as this button.
	Click to delete the logbook entry on the same row as this button.
	Click on any button like this to do the action listed on the button (Update, Add, etc.)
	Click buttons like this to display the next screen, cancel, go back or finish functions like device uploads. The button label tells you what action you can do when you click on it.
	Enter the date in the field, or click the calendar to the right of the field, and select the year, month and date.
	Click the arrow(s) in these fields to display a drop-down list of choices for filling in the field.

Button, Link or Field	Action
First Name*:	Type text in the gray box to the right of or below this type of field. (When you are editing such fields, delete or type over existing text to replace it.)
BG Enable: Report BG data from my Paradigm / Do Not Report BG data from my Pa	Click in the radio button (circle) next to your choice for this field.
	If you see a question mark next to a field, you can click it to display information about how to fill in the field.

Chapter 3:
Getting started

- *Synchronizing dates and times*
- *Security alert*
- *Enrolling*
- *Logging in*
- *Logging off*
- *Displaying online help files*
- *If you forget your password*
- *Reviewing the privacy statement*
- *Reviewing terms of use*

Synchronizing dates and times

Incorrect dates or times affect the accuracy of the system reports. Multiple device uploads and manually entered information will not compare correctly if your devices and computer have different dates/times.

It is very important that you make sure all of the following are displaying the current date and time. They should also be within one minute of one another.

- computer
- insulin pump
- continuous glucose monitor
- glucose meter(s)

A warning message displays during device uploads if there is more than 10 minutes difference between your device and computer.

Changing the date and time on your computer

1. Double-click on the time display on your computer desktop, or select **Start > Control Panel > Date and Time.**

   The Date and Time Properties window displays.

2. Use the menu options, tabs and controls to change the date and time as needed.

Changing the date and time on your device

See the appropriate Medtronic MiniMed pump or continuous glucose monitor user guide for instructions on changing the date and time on those devices.

For your glucose meter, see the meter's user guide for instructions on changing the date and time.

Security alert

When you first enter the system and click either Sign In or Sign Up Now, a security alert may display. Depending on your Internet Explorer settings, you may never see this alert. However, if you do, this section describes what it is and how to handle it.

Security Alert
Information you exchange with this site cannot be viewed or changed by others. However, there is a problem with the site's security certificate.
The security certificate was issued by a company you have not chosen to trust. View the certificate to determine whether you want to trust the certifying authority.
The security certificate date is valid.
The security certificate has a valid name matching the name of the page you are trying to view.
Do you want to proceed?
Yes
No
View Certificate

The alert provides the following:

- Information about the security of the CareLink Personal Web site.
- Access to the system's security certificate.
- Statement that information you exchange with this system is secure, but you have not yet chosen to trust the site. By secure, it means the information will not be distributed to or viewed by others.
- Information about the organization who owns/operates CareLink Personal, and whether the certificate is current.

You should check to see if the security alert has a circle with a check mark next to the following:

- The security certificate date is valid.
- The security certificate has a valid name matching the name of the page you are trying to view.

Choosing not to install the security certificate

If you do not feel comfortable viewing and installing the security certificate, do the following each time you log in:

1. Make sure the security alert displays the check marks described above.
2. Click the Yes button.

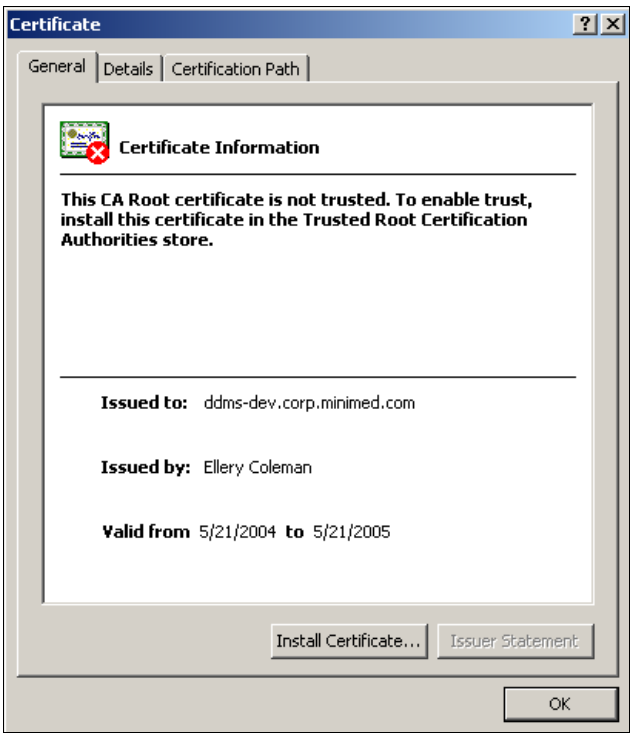
Note: *If you click* No*, you will not be able to continue using CareLink Personal.*

Installing the security certificate

You can also choose to view and install the certificate. Installing it means you are choosing to trust CareLink Personal. The security alert will no longer be displayed each time you log in.

Note: *You only have to complete this procedure one time.*

1. Display the certificate by clicking the View Certificate button.



Check to make sure of the following:

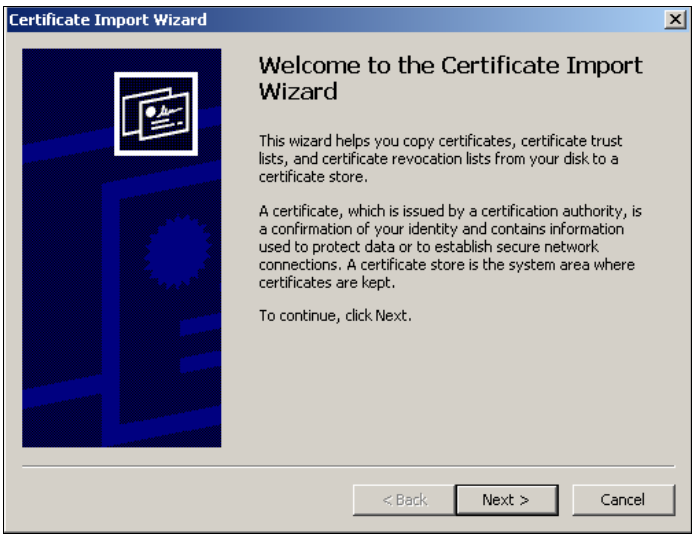
- The name of the issuer (Issued To and Issued By) matches the Internet address you used to enter the system.
- The date of the certificate (Valid from... to ...) has not expired.

You can also click on the tabs at the top of the Certificate page to see more information.

If you decide you want to install the certificate, continue with the following steps:

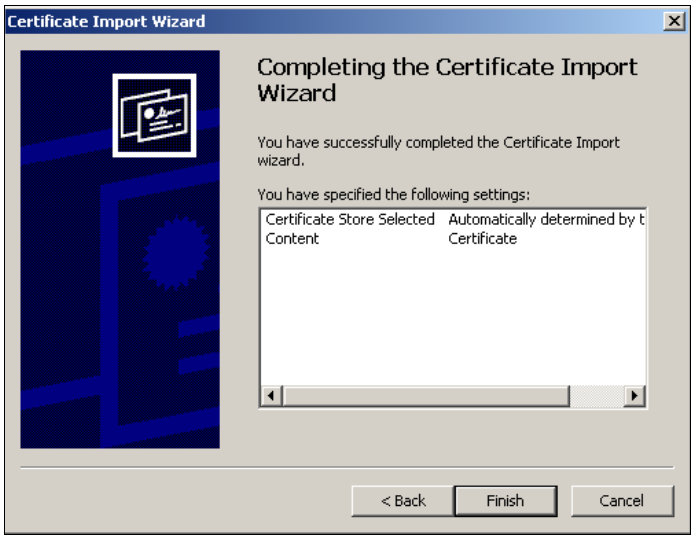
2. Click the Install Certificate... button at the bottom of the Certificate page.

The Certificate Import Wizard is displayed.


Certificate Import Wizard
Welcome to the Certificate Import Wizard
This wizard helps you copy certificates, certificate trust lists, and certificate revocation lists from your disk to a certificate store.
A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.
To continue, click Next.
< Back
Next >
Cancel

3. Follow the instructions on the Wizard screens, clicking the **Next >** button when you are ready to move on.

   When you reach the end of the process, the Completing the Certificate Import Wizard screen displays.



4. If you need to make changes, click the **< Back** button and modify your certificate store selection. Otherwise, click the **Finish** button.

   A message displays saying the import of the certificate to your system was successful.

5. Click the **OK** button to complete the installation process.

   Now when you log in, you should no longer see the security alert.

Enrolling

Before you can use the system to store data and create reports, you must enroll. During enrollment you will provide information about yourself through an enrollment form.

Later you can view or change this enrollment information by going to the My Info screen. See the chapter "My Info screen" on page 100 to learn more about how to update your personal information.

Completing enrollment

1. From the Welcome screen, click the Sign Up Now button.
   - If you have not yet selected a country or language, a screen is displayed to allow you to do so. Select your country, and, if necessary, language.

   The Terms of Use and Privacy Statement screen displays.

Note: *If the Security Alert pop-up displays, see* "Security alert" on page 13.

Terms of use and privacy statement

1. If you need to change your country or language selection, click the link at the top of the screen. Language selection can also be changed after enrollment through the Preferences screen (see Chapter 9, "Preferences screen" on page 105).
2. Use the scroll bar to the right of each section to page through and read the contents.
3. Make sure the statements at the bottom of the screen are true statements for you. Click to place a check mark in the boxes next to each one that is true.
4. Click the Accept button.

   The Enrollment Form displays.

Note: *If you click the* Decline *button, you are returned to the Welcome screen without enrolling.*

Enrollment form

1. Filling in the fields

1. Enter information in all the required fields—the ones marked with a red asterisk, *.

   The following table describes the types of fields on the form, and the action required for you to complete them:

Field	Action
Text Entry 	Type your information into the gray field to the right.
Pull Down Menu 	Click the arrow to the right of the gray field to display a selection list. Highlight your choice and click it to place it in the gray field.

Note: *If you already have a U.S. Medtronic MiniMed Online Store username and password, type them into the Username and Password fields.*

Spaces are not allowed in usernames. If you use spaces in a password, you will have to remember to enter the same spaces each time you use that password.

2. Understanding a field

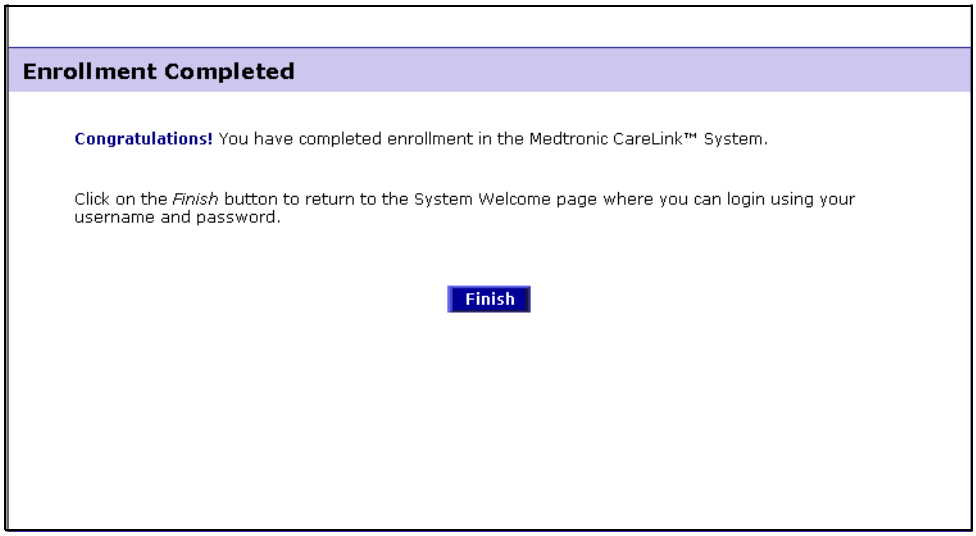
Some of the fields that might require explanation, have question mark buttons, , next to them. When you click on the question mark, a window displays with information about how to fill in the field.

To close the information window, click the button or the button in the upper right corner of the window.

3. Submitting the enrollment form

1. Verify that all of the information you have provided on the enrollment form is correct and complete.
2. Click the button at the bottom of the form.

   If your enrollment is successful, the Enrollment Completed screen displays.


Enrollment Completed
Congratulations! You have completed enrollment in the Medtronic CareLink™ System.
Click on the Finish button to return to the System Welcome page where you can login using your username and password.
Finish

Note: *If you receive an error message after clicking the Submit button, it could be for one of the following reasons:*

- not all of the required fields have been completed.
- the information in one or more of the fields is either not complete or is the wrong type of information for that field.
- Your username matches someone else's.

3. Click the **Finish** button to return to the Welcome screen to log in.

See "Logging in" on page 21 for information on logging in.

Logging in

In order to use this system, you must first log in. This is for security reasons, so no one else can see your information unless they know your username and password.

A login is required to use CareLink Personal in the following situations:

- Each time you access the system.
- If you change your mind after choosing to log off.
- Your session times out, which happens if there is no activity on a screen for several minutes.

Steps for logging in

1. On the Welcome screen sign in box, type the username and password you entered at enrollment.
2. Click the

button.

Note: If the Security Alert pop-up displays, see "Security alert" on page 13.

The Home screen displays. See the chapter, "Home screen" on page 28, to learn more about the Home screen.

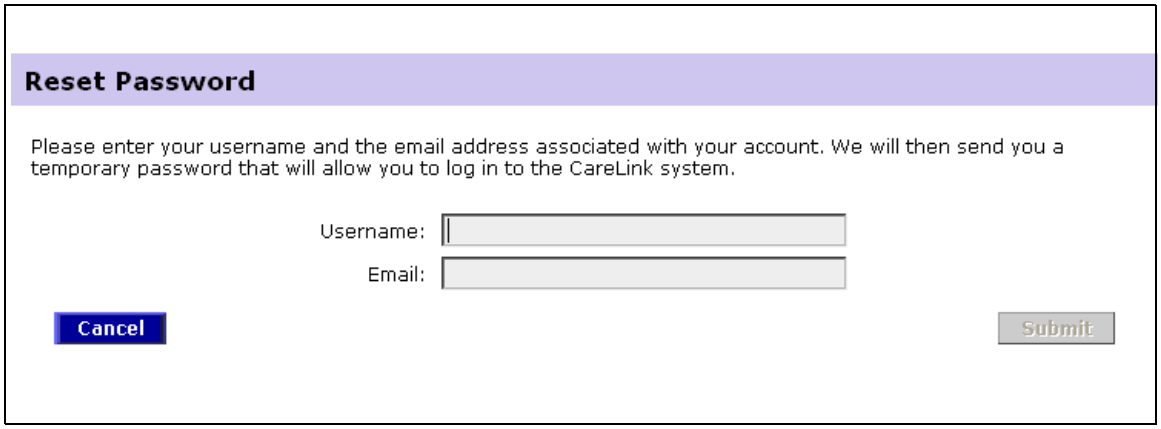
If you receive an error message when you try to log in, try re-typing your username and password. If you continue to fail, contact the Product Help Line (see "Assistance" on page 6).

If you forget your password

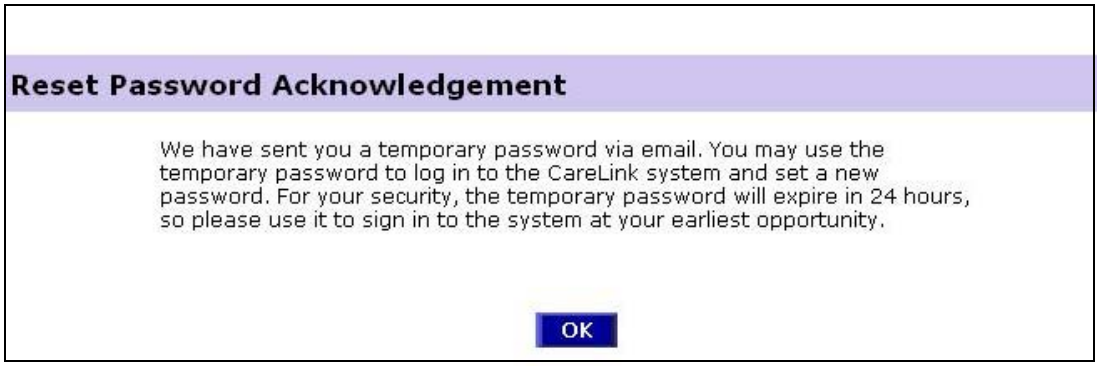
If you forget your password, take the following steps to reset and update the password.

1. Click the

link on the Welcome screen. The Reset Password screen displays:

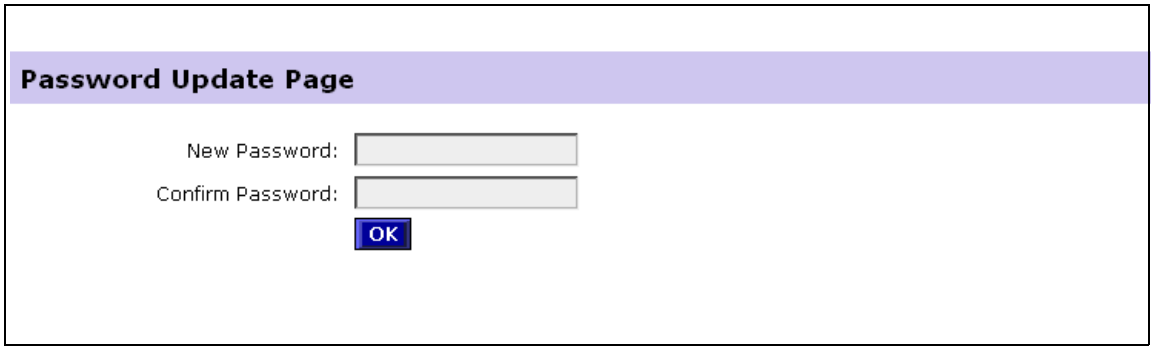

Reset Password
Please enter your username and the email address associated with your account. We will then send you a temporary password that will allow you to log in to the CareLink system.
Username:
Email:
Cancel
Submit

2. Type in the username and email address you use for your CareLink account in the appropriate fields, and click SUBMIT. Once the system validates your information, and the reset occurs, an acknowledgement page displays:


Reset Password Acknowledgement
We have sent you a temporary password via email. You may use the temporary password to log in to the CareLink system and set a new password. For your security, the temporary password will expire in 24 hours, so please use it to sign in to the system at your earliest opportunity.
OK

3. Click the OK button.
4. A temporary password is emailed to you. The next time you log in to the system using this temporary password, the Password Update screen displays. This allows you to choose your own new password.

Note: *You must login with your temporary password and update it within 24 hours of the time the password was reset. Otherwise, the temporary password expires, and you will need to request another reset.*



5. Type in a password in the New Password field.

   The password can be from 4 to 20 characters long. It is recommended that you make it at least 8 characters, and include upper case, lower case and numbers.

6. Re-type your new password in the Confirm Password field.

7. Click the OK button.

   A box displays, confirming the successful update of your password.

8. Click **OK**.

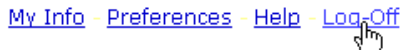
   The Home screen displays.

If you experience any problems in resetting or updating your password, contact the HelpLine (see "Assistance" on page 6).

Logging off

If you have finished using the system, you should log off by taking the following step:

1. Click the Log-Off link in the upper right part of whichever system screen you are on, as shown below:



The Welcome screen displays. You can then choose to log in again (see "Logging in" on page 21 for login instructions). Or, you can leave the system by going to another Web site or by closing Internet Explorer.

Security reasons for logging off

If you are going to leave your computer for a while, make sure you log off the system. The system does time out and automatically log you off after a certain period of inactivity. However, to make certain you are logged off right away, it is best that you log off yourself.

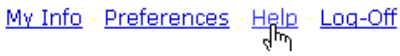
Please note that your personal information may remain visible in the browser after you log off. So, you should also close the browser if you are concerned about guarding that information. You should take special care to close the browser after you log off if you use public access computers. Examples of public access computers are those found in public libraries and Internet cafes. For information on setting your browser to be as secure as possible, see Appendix A, "Setting Internet Explorer for secure browsing" on page 115.

Displaying online help files

If you need help while you are on the system, you can display the online help screens. These are instructions and guidelines similar to this document that you can view from the system.

To display the online help, take the following steps:

1. Click the Help link in the upper right part of whichever screen you are on, as shown below:

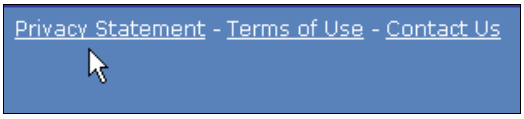


The online help screens display. Follow the tabs and links, and use the search tools and Back button to access the topic you want.

Reviewing the privacy statement

You can read the Privacy Statement at any time during your use of the system by taking the following steps. This gives the security and privacy measures in effect to protect all CareLink Personal users.

1. From anywhere in the system, click the Privacy Statement link at the bottom of the screen, as shown below:



   The Privacy Statement screen displays. Use the scroll bar on the right side of the screen to see all of the information.

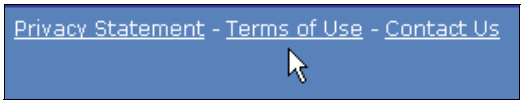
2. To print out this screen, select **File > Print** from the Internet Explorer menu options.

3. To close this screen, click the in the upper right corner of the Internet Explorer title bar.

Reviewing terms of use

You can read the Terms of Use any time while in the system by taking the following steps. Terms of Use states the agreement for use of CareLink Personal you accepted at enrollment.

1. From anywhere in the system, click the Terms of Use link at the bottom of the screen, as shown below:



The Terms of Use screen displays. Use the scroll bar on the right side of the screen to see all of the information.

2. To print out this screen, select **File > Print** from the Internet Explorer menu options.
3. To close this screen, click the in the upper right corner of the Internet Explorer title bar.

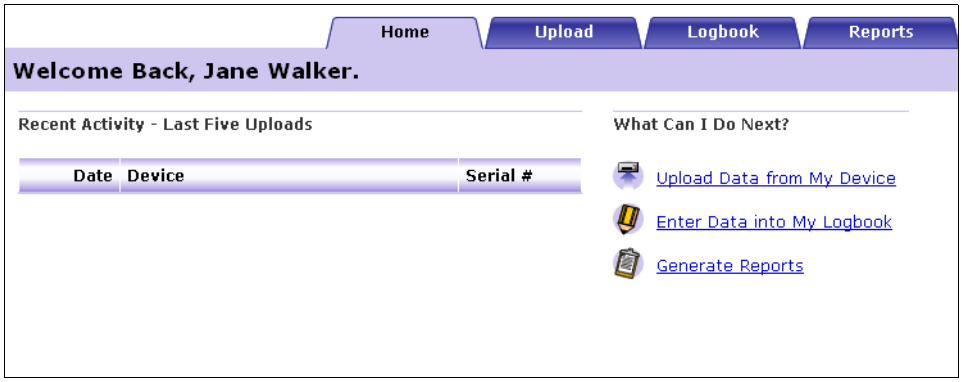
Chapter 4:
Home screen

- *Opening the Home screen*
- *Recent Activity – Last 5 Uploads*
- *What Can I Do Next?*

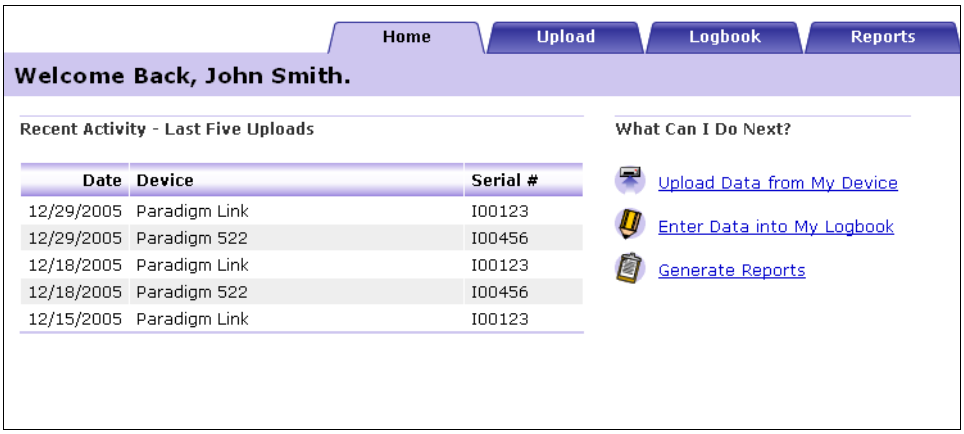
The Home screen is the first screen you see when you log in to CareLink Personal. It is a personalized screen, welcoming you and displaying the following information:

- **Recent Activity – Last 5 Uploads:** information about your most recent device uploads.
- **What Can I Do Next?:** links to the other screens where you can use the system's features.

When you first enroll, before any device uploads, the Recent Activity – Last 5 Uploads section is empty. The Home screen lets you know that you have not yet stored any data.



Once you have done some device uploads, the Home screen will look more like the following.



Opening the Home screen

There are two ways to open the Home screen:

- **Logging into the system** always takes you to the Home screen first.
- Once you are logged in, open the Home screen from anywhere within the system by **clicking on the**

tab.

Recent Activity – Last 5 Uploads

This section of the Home screen displays the last five device uploads you have done. The information about these uploads displays in three columns with the following data:

- The date of the upload.
- The name of the device from which you uploaded data.
- The serial number of the device from which you uploaded data.

The information is displayed as follows:

Recent Activity - Last Five Uploads

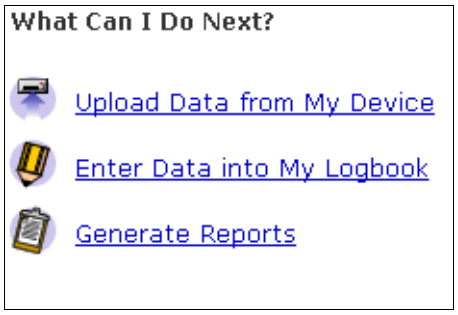
Date	Device	Serial #
12/30/2004	Paradigm Link	000123
12/30/2004	Paradigm 515	000456
12/19/2004	Paradigm Link	000123
12/19/2004	Paradigm 515	000456
12/16/2004	Paradigm Link	000123

The number of device uploads displayed is less than five if you have not yet done five uploads. If you have yet to perform any device uploads at all, this section of the Home screen is empty.

Note: *Information about uploading from devices is in the chapter* "Upload screen" on page 32.

What Can I Do Next?

This section of the Home screen gives the types of activities you can do on the system. It also provides links to the screens from which you can perform these activities:



Click on one of these links to go to the associated screen and begin the activity you have chosen.

Note: *For information about these screens, see the remaining sections of this document.*

Chapter 5:
Upload screen

- *Opening the Upload screen*
- *Connecting devices to the computer*
- *Uploading data from your device*
- *Downloading the Java Plug-in*
- *Downloading the SerialPort driver*

Use the Upload screen to copy information from your device to the system. This information is then ready for use in reports.

Uploads can only be done using the devices specified in "Supported devices" on page 2 in Chapter 1. Device uploads will not be successful unless your computer hardware and devices are connected properly to one another. Diagrams for connecting your computer and devices are provided in this chapter. For further instructions, you should refer to the appropriate hardware user guide (e.g., the ComLink User Guide).

Here are some of the types of information the system gathers from your insulin pump during an upload:

- Pump name and serial number
- Various settings on the pump, such as the alert mode, the beep volume and the time display
- Basal insulin amounts delivered
- Bolus insulin types and amounts delivered
- Priming amounts
- Suspend periods
- Sensor glucose readings over a period of time

The information the system gathers from your glucose meter includes the following:

- Your various blood glucose readings over a period of time
- Control solution tests
- Check strip tests

- Blood ketone values

The information the system gathers from your continuous glucose monitor includes the following:

- Isig values
- Sensor Glucose (SG) readings
- Sensor coefficient values
- Sensor Calibration factors
- Meal Markers
- Insulin Injections

Note: *To retrieve certain data from a Guardian REAL-Time CGM System, you must first have entered the data via the Capture Event feature. This is entered manually on the monitor. It includes meter BG reading, exercise duration, boluses given, and carbohydrates eaten. Refer to the Capture Event instructions in the "Guardian® REAL-Time Continuous Glucose Monitoring System User Guide."*

For uploads, the system requires your Internet browser to have the Sun Microsystems Java™ Plug-in. The plug-in allows your Internet Explorer Web browser to run the device upload program (applet). If the plug-in is not installed, the system detects this and lets you know. The system then gives you the option of installing it before your first device upload. Plug-in installation information is contained in this chapter in “Downloading the Java Plug-in” on page 44.

The system also requires a driver, called the SerialPort package file, to be installed. This driver extends the capabilities of the plug-in so it can gather data from your computer’s serial communications port. You will be given the option of installing this driver before your first device upload. The section “Downloading the SerialPort driver” on page 47 contains installation instructions.

In addition, if you are using the USB interface cable, the system may require installation of the driver for it. This may occur during your first upload when you select the USB interface cable for your communication device. The section “Installing the USB interface cable driver” on page 48 contains installation instructions.

Note: *If your PC is running with the Vista operating system, and you have not yet uploaded a device with this operating system, see* “Device uploads for Windows Vista™ users” on page 109.

Opening the Upload screen

1. Make sure you are logged in.
2. Click the Upload tab.

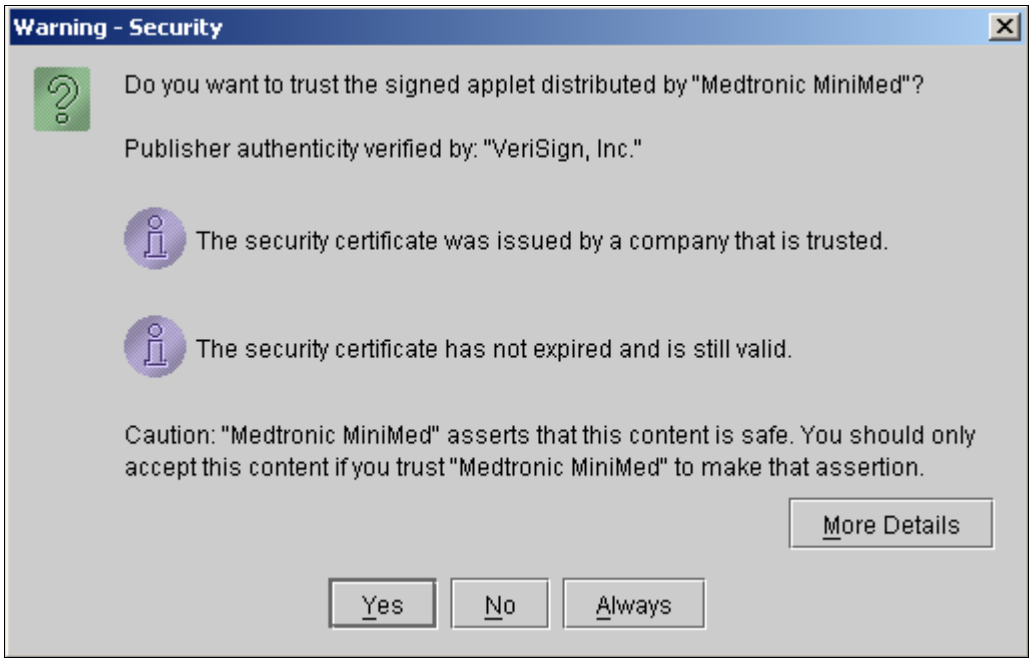
   or

   Click the Upload Data from My Device link on the Home screen.

   The Upload screen begins displaying.

Security warning

Before the first Upload screen is displayed, the following security warning displays.


Warning - Security
Do you want to trust the signed applet distributed by "Medtronic MiniMed"?
Publisher authenticity verified by: "VeriSign, Inc."
The security certificate was issued by a company that is trusted.
The security certificate has not expired and is still valid.
Caution: "Medtronic MiniMed" asserts that this content is safe. You should only accept this content if you trust "Medtronic MiniMed" to make that assertion.
More Details
Yes
No
Always

This is asking if you trust that the content of this system is safe. Your trust is based on the fact that Medtronic MiniMed has stated that it is safe. You can choose Yes, No or Always.

- If you choose **Yes**, you can proceed with the Upload. However, you will see this warning again the next time you select the Upload screen.
- If you choose **No**, you will not be able to proceed with the upload.
- If you choose **Always**, you can proceed with the upload. Plus, you will no longer see this warning when you select the Upload screen.

If you want to view more information about the security certificate, click on the **More Details** button.

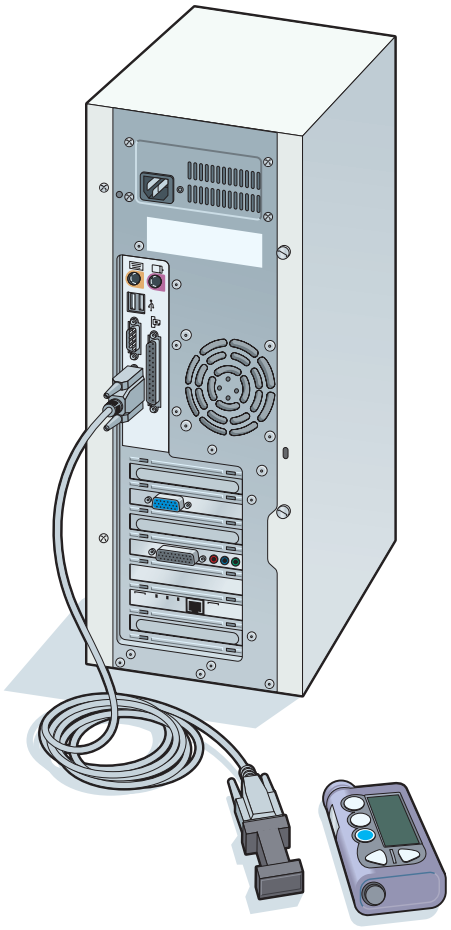
Connecting devices to the computer

The hardware connection diagrams that follow show you how to connect your device to your computer for uploads.

First, review the overview diagram so you have an idea of where things should be connected. Then, look at the other diagrams for specifics. During the system upload process, detailed connection instructions are displayed, such as whether the device should be on or off.

Note: *Some devices supported by this system may not be available in all countries where this system is approved for use.*

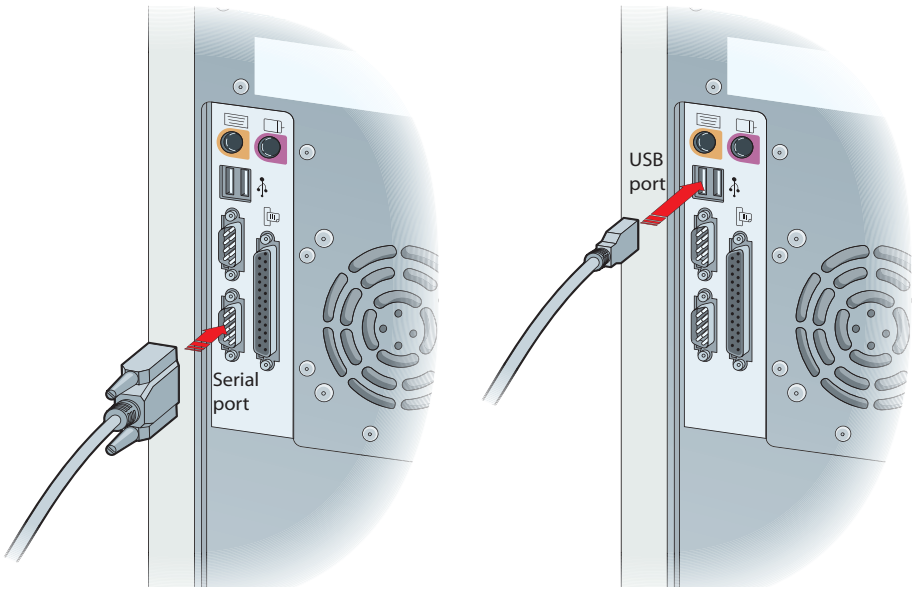
Overview of hardware connections



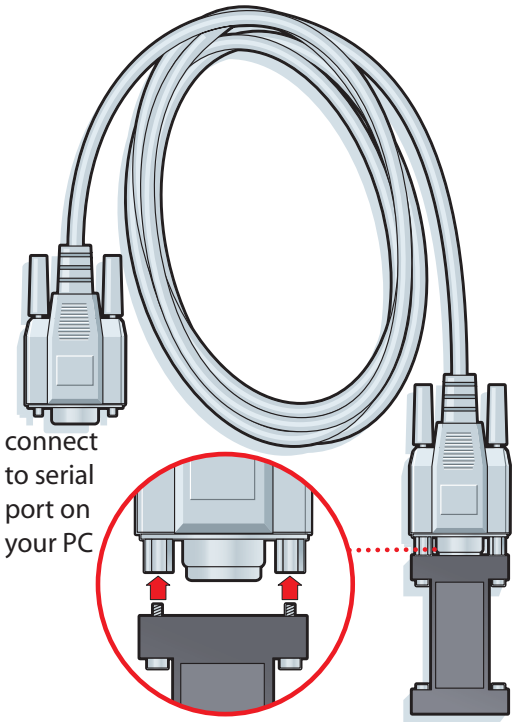
Note: *The above example shows the ComLink being used as the communication device between a pump and a PC. The Guardian REAL-Time CGM System can also use the ComLink to communicate with the PC.*

Hardware connection diagrams

PC connections

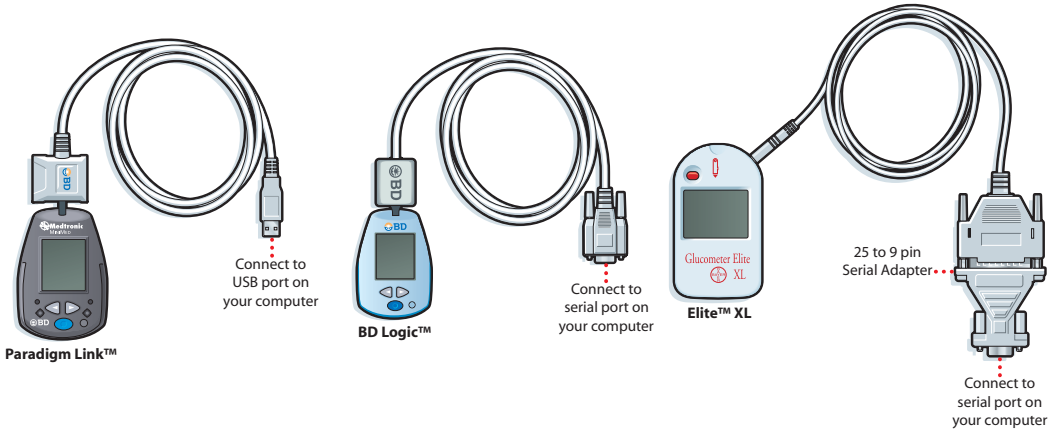


Optional Components



ComLink for use with the Paradigm series pumps

Meter Options



Note: *The above diagram provides a few examples, and does not attempt to show all of the supported meters.*

Uploading data from your device

Once you connect your device to your computer, you are ready to use the Upload screen to copy device data.

The data uploaded from your device(s) is stored in the system—not on your computer. Data is accessed from the system via the Internet. This way, uploaded files do not use up your computer storage space.

Note: *If you click on another system tab or link during an upload, the upload will be cancelled.*

WARNING: If a bolus or temp basal is being delivered, allow it to finish before uploading the pump.

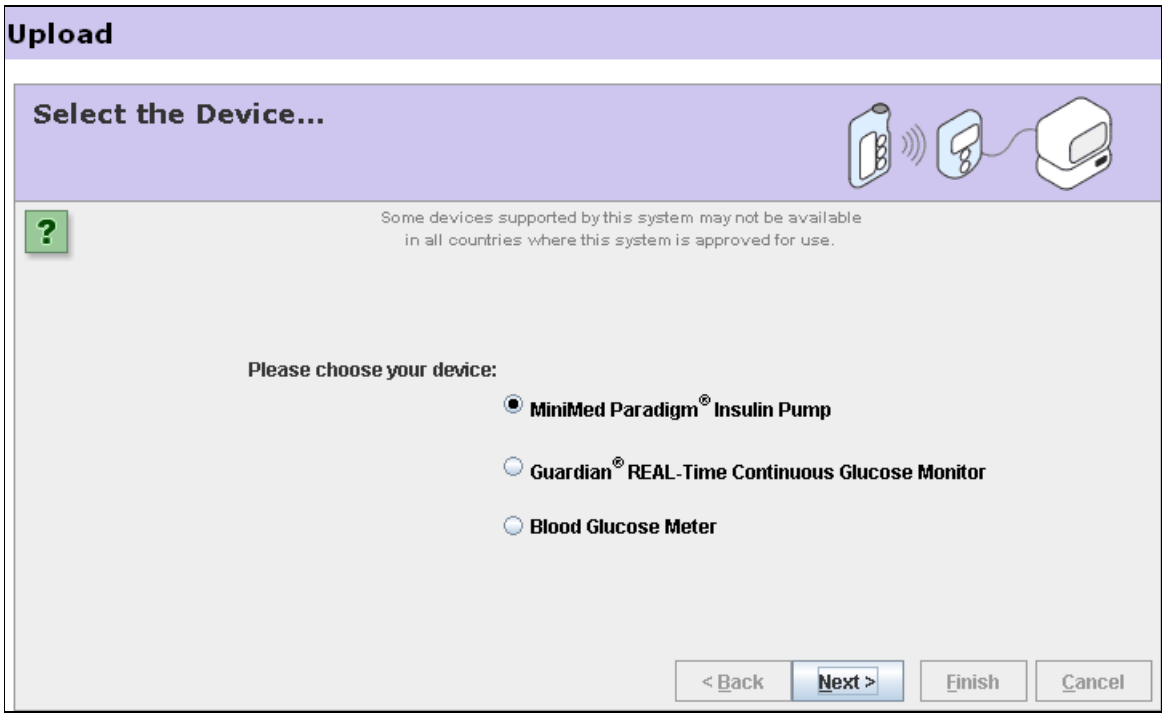
CAUTION: The pump will be in SUSPEND mode during an upload. Make sure the pump is taken out of SUSPEND mode when the upload is complete.

The following steps take you through the process of a device upload:

1. Make sure you are on the Upload screen.

Note: *For Java plug-in installation, see* "Downloading the Java Plug-in" on page 44. *For SerialPort driver installation, see* "Downloading the SerialPort driver" on page 47.

Once the applet loads, the first device upload window displays:


Upload
Select the Device...
Some devices supported by this system may not be available
in all countries where this system is approved for use.
Please choose your device:
MiniMed Paradigm® Insulin Pump
Guardian® REAL-Time Continuous Glucose Monitor
Blood Glucose Meter
< Back
Next >
Finish
Cancel

2. Follow the instructions on the window (to select device). When you are ready to go to the next step, click **NEXT>** to display the next window.

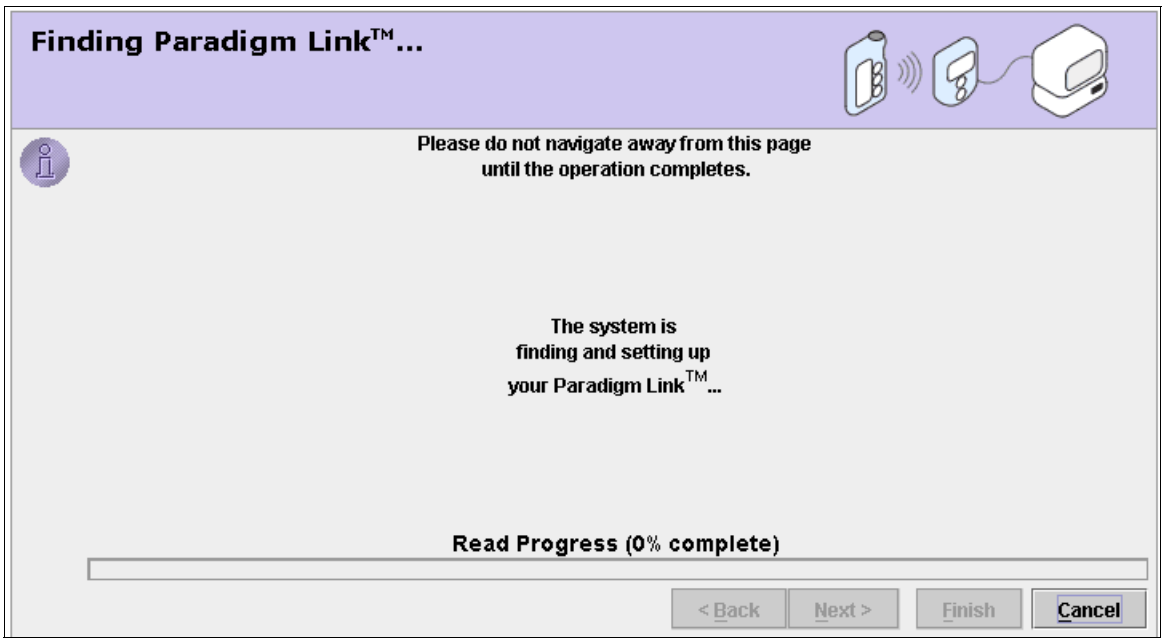
   Follow the instructions on each window, making sure to click **NEXT>** when you are ready to move on.

Note: *If you see screens for installing the driver for the USB interface cable, see* "Installing the USB interface cable driver" on page 48.

   To skip steps in the process, wait until the **FINISH** button is highlighted, and click on it instead of **NEXT>**.

3. When you see the Verify Connections window, read the steps. This is to ensure you have properly set up communication between your computer and device. (If need be, see "Connecting devices to the computer" on page 35.) When you

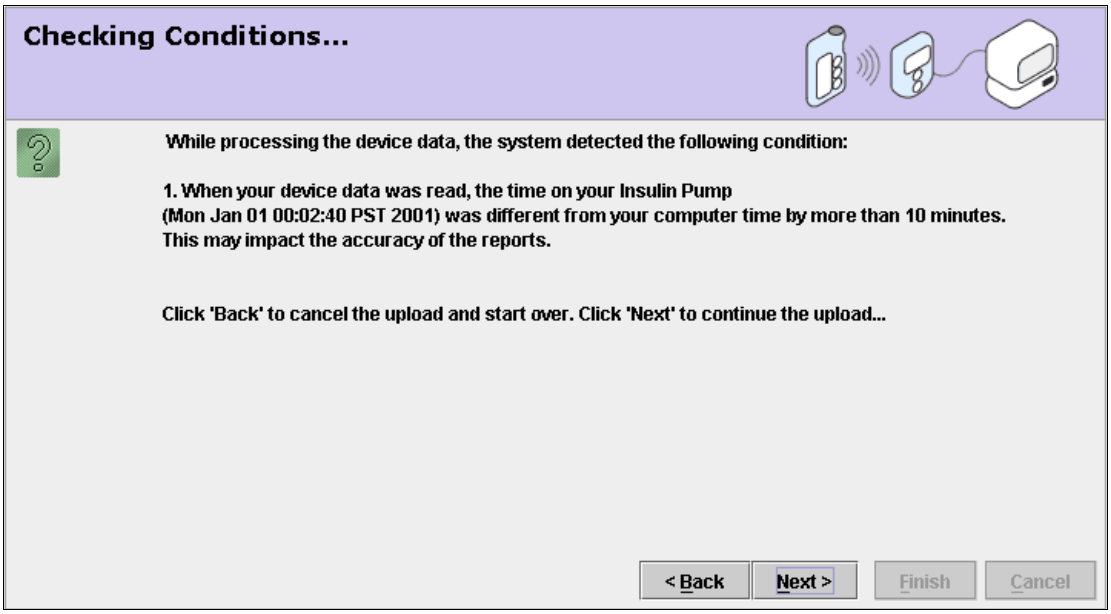
are ready to complete the upload, click FINISH. A progress window similar to the following displays:



Tip: *To stop the upload, click CANCEL.*

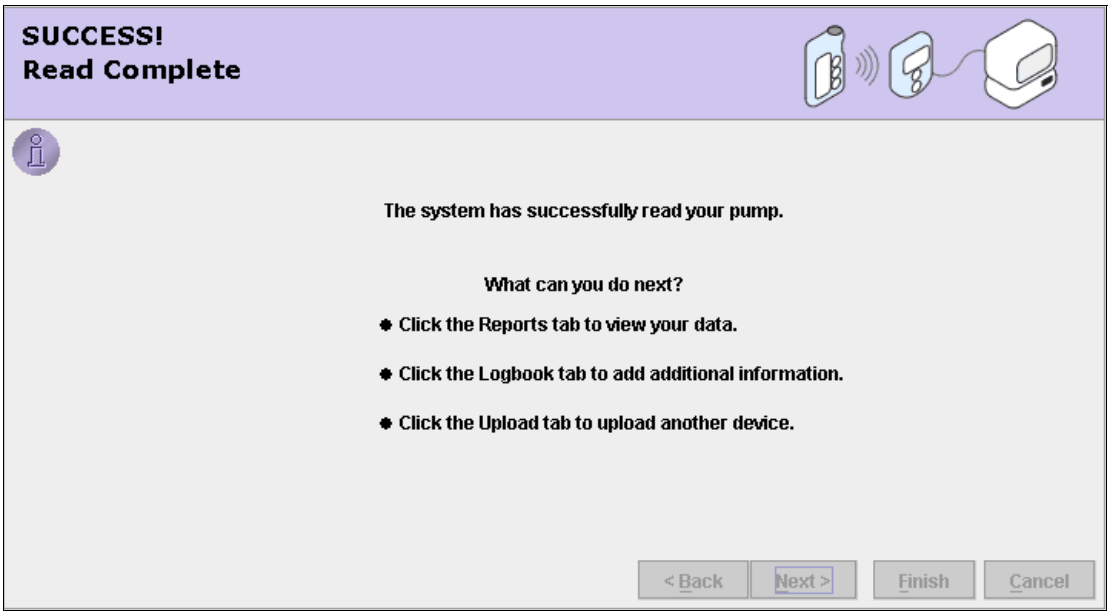
This window shows the progress of your device upload. Its display changes to tell you each step in the upload.

A Checking Conditions window displays if there are differences between the device you are uploading and one you uploaded before. If there is a difference in the time settings between your device and your computer, another Checking Conditions window displays. See the following example.


Checking Conditions...
While processing the device data, the system detected the following condition:
1. When your device data was read, the time on your Insulin Pump
(Mon Jan 01 00:02:40 PST 2001) was different from your computer time by more than 10 minutes.
This may impact the accuracy of the reports.
Click 'Back' to cancel the upload and start over. Click 'Next' to continue the upload...
< Back
Next >
Finish
Cancel

4. If you see a window like one of the above, read and follow the provided information.

   When the upload completes successfully, the following message displays:


SUCCESS!
Read Complete
The system has successfully read your pump.
What can you do next?
Click the Reports tab to view your data.
Click the Logbook tab to add additional information.
Click the Upload tab to upload another device.
< Back
Next >
Finish
Cancel

The screen lists options for how to make use of the uploaded data. It also reminds Paradigm Link users to disconnect the Link from the PC to conserve battery life.

If you want to see if your upload was recorded in the database, see "Verifying your device upload."

If you get an error message and cannot fix it, see "Assistance" on page 6.

CAUTION: Once the upload is complete, make sure the pump is no longer in suspend mode.

Verifying your device upload

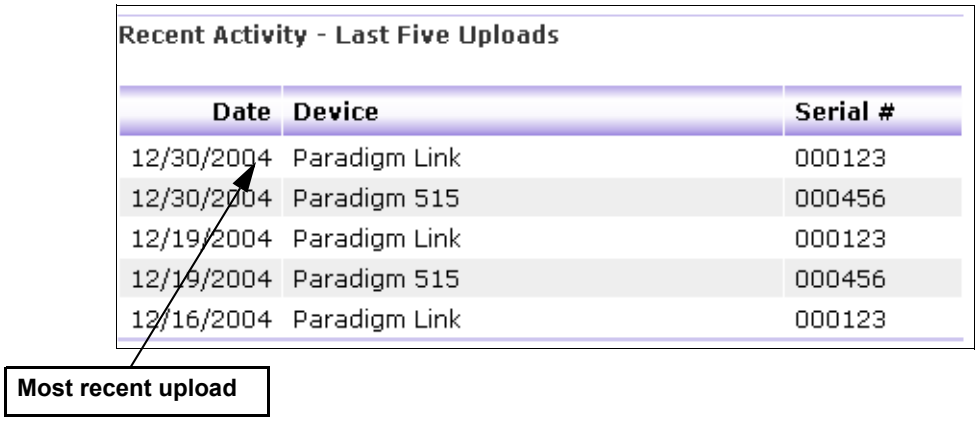
If you want to make sure your device upload was entered into the system database, check the Home screen:

1. Click the Home tab.

   The Home screen displays.

2. Look at the Recent Activity – Last 5 Uploads section of the screen.

   The upload you just performed should be listed at the top of the list as the most recent upload. It will have today's date and the name of the device you uploaded data from.

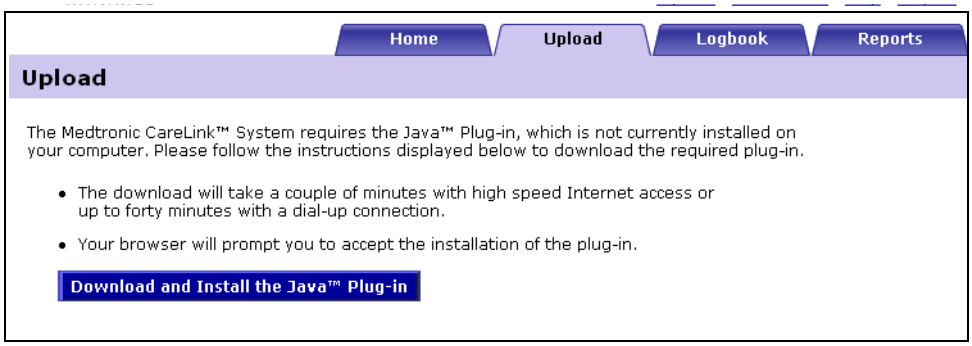


If you want to create a report using the data you just uploaded, see the chapter "Reports screen" on page 61.

Downloading the Java Plug-in

If your operating system is Windows XP, with Service Pack 2, see the section "If you have Windows XP, Service Pack 2" on page 45 **first.**

1. If you do not have the Java plug-in installed, you will be notified on the Upload screen.


Home
Upload
Logbook
Reports
Upload
The Medtronic CareLink™ System requires the Java™ Plug-in, which is not currently installed on your computer. Please follow the instructions displayed below to download the required plug-in.
The download will take a couple of minutes with high speed Internet access or up to forty minutes with a dial-up connection.
Your browser will prompt you to accept the installation of the plug-in.
Download and Install the Java™ Plug-in

2. Click the button **Download and Install the Java™ Plug-in**. A pop-up window displays, asking if you want to install the plug-in.
3. Click **YES**. The download progress is displayed.

Note: *Some operating systems may require that you have Administrative privileges in order to install the Java plug-in.*

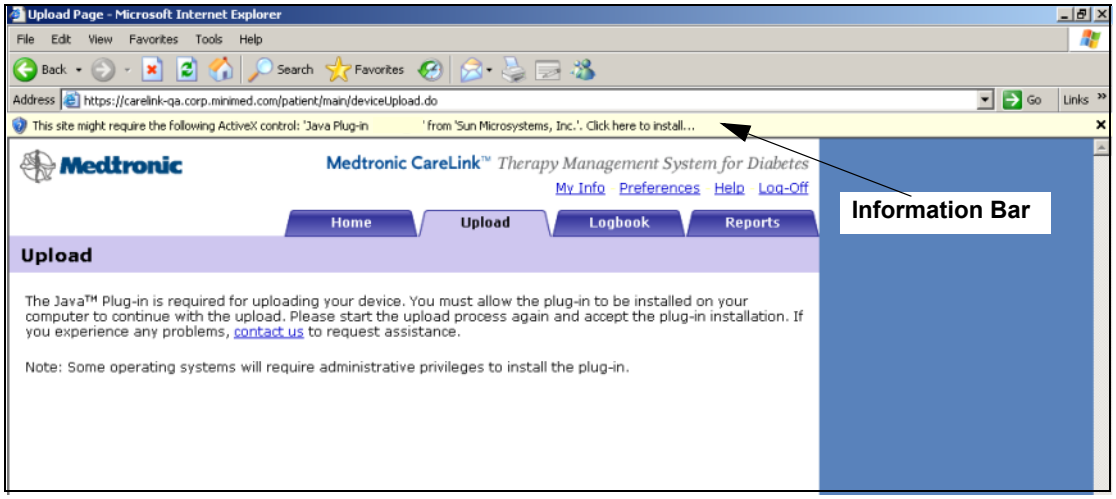
4. Accept the License Agreement when it is displayed, and select Typical for Setup Type. An installation progress window displays.
5. The installation of the plug-in is complete when you are returned to the Upload screen.

Note: *You may be prompted to restart your computer in order for the Java installation to take effect. If so, close any open programs and restart your computer.*

If you have Windows XP, Service Pack 2

If the operating system installed on your computer is Windows XP, Service Pack 2, the steps for downloading the Java plug-in vary:

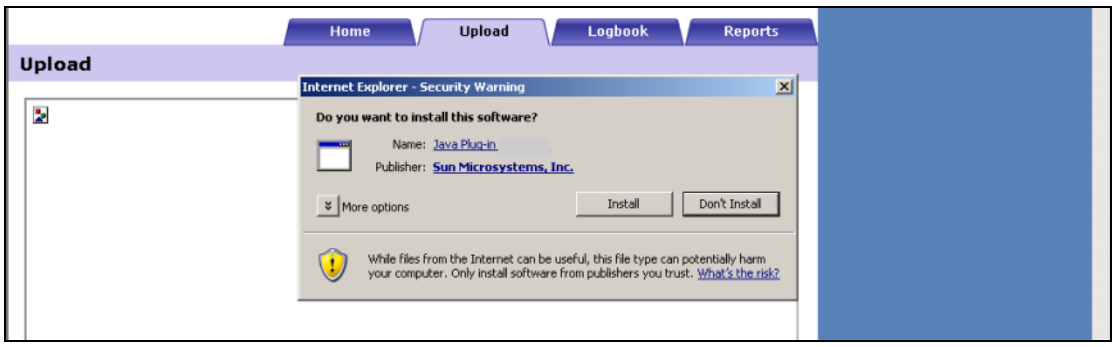
1. If you do not have the Java plug-in installed, you are notified on a yellow information bar that displays near the top of your Web browser.


Upload Page - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address https://carelink-qa.corp.minimed.com/patient/main/deviceUpload.do
Go Links
This site might require the following ActiveX control: 'Java Plug-in ' from 'Sun Microsystems, Inc.'. Click here to install...
Medtronic
Medtronic CareLink™ Therapy Management System for Diabetes
My Info Preferences Help Log-Off
Home Upload Logbook Reports
Upload
The Java™ Plug-in is required for uploading your device. You must allow the plug-in to be installed on your computer to continue with the upload. Please start the upload process again and accept the plug-in installation. If you experience any problems, contact us to request assistance.
Note: Some operating systems will require administrative privileges to install the plug-in.
Information Bar

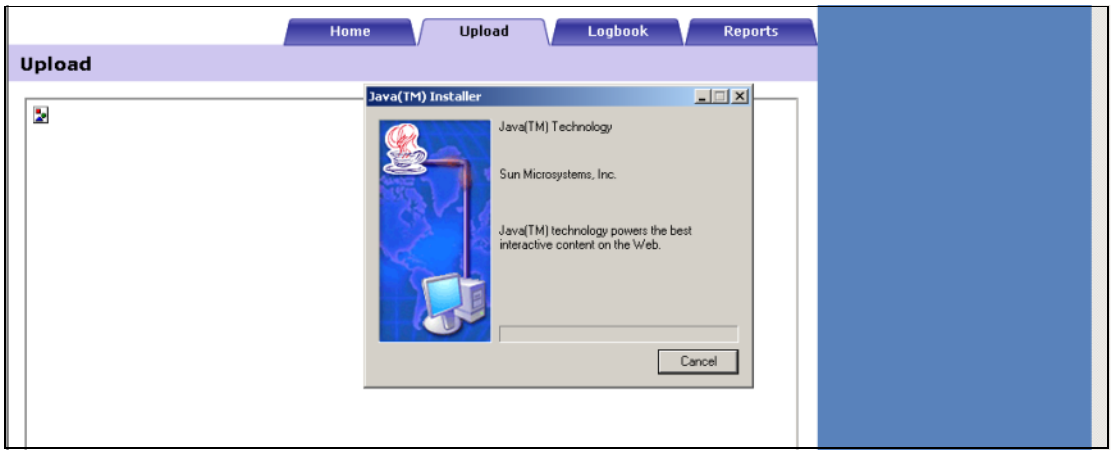
2. Click on the yellow information bar. A pop-up list displays.

This site might require the following ActiveX control: 'Java Plug-in
Install ActiveX Control...
What's the Risk?
Information Bar Help
Medtronic
Management System for Diabetes
My Info Preferences Help Log-Off
Home Upload Logbook Reports
Upload
The Java™ Plug-in is required for uploading your device. You must allow the plug-in to be installed on your computer to continue with the upload. Please start the upload process again and accept the plug-in installation. If you experience any problems, contact us to request assistance.
Note: Some operating systems will require administrative privileges to install the plug-in.

3. Select **Install ActiveX Control** from the pop-up list. The Security Warning pop-up displays.


Home
Upload
Logbook
Reports
Upload
Internet Explorer - Security Warning
Do you want to install this software?
Name: Java Plug-in
Publisher: Sun Microsystems, Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

4. Click the **INSTALL** button. A window displays the Java installation progress.



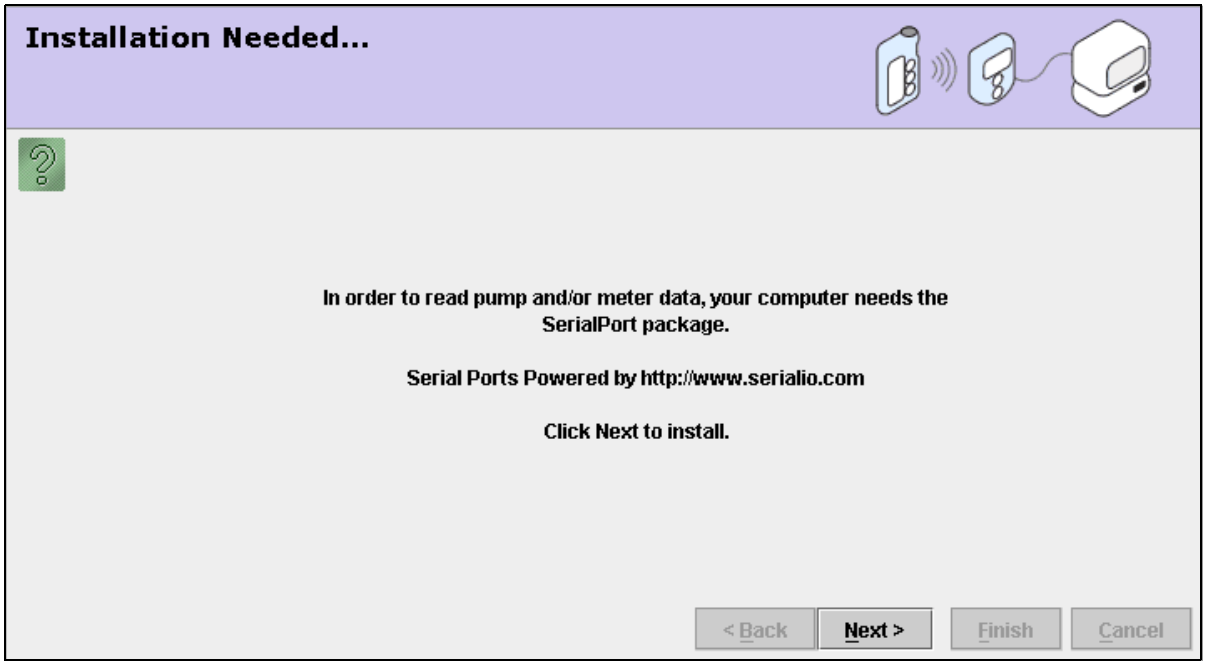
5. Accept the License Agreement when it is displayed, and select Typical for Setup Type. An installation progress window displays.

6. The installation of the plug-in is complete when you are returned to the Upload screen.

Note: *You may be prompted to restart your computer in order for the Java installation to take effect. If so, close any open programs and restart your computer.*

Downloading the SerialPort driver

During your first device upload, the system requires the installation of a driver called the SerialPort package file. When you see the following screen, take the step that follows to download the required driver.

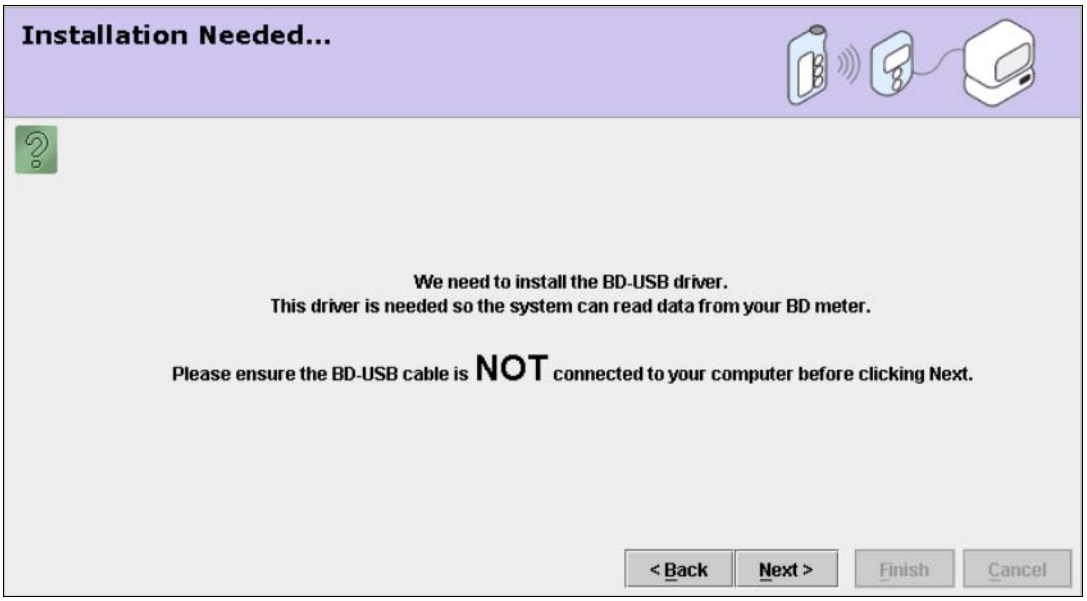

Installation Needed...
In order to read pump and/or meter data, your computer needs the SerialPort package.
Serial Ports Powered by http://www.serialio.com
Click Next to install.
< Back
Next >
Finish
Cancel

1. When you are ready to download and install the driver, click the Next > button.

   The installation is complete when the Upload device selection screen is displayed. If you want further information about the Serialport package file, go to the provided URL, http://www.serialio.com.

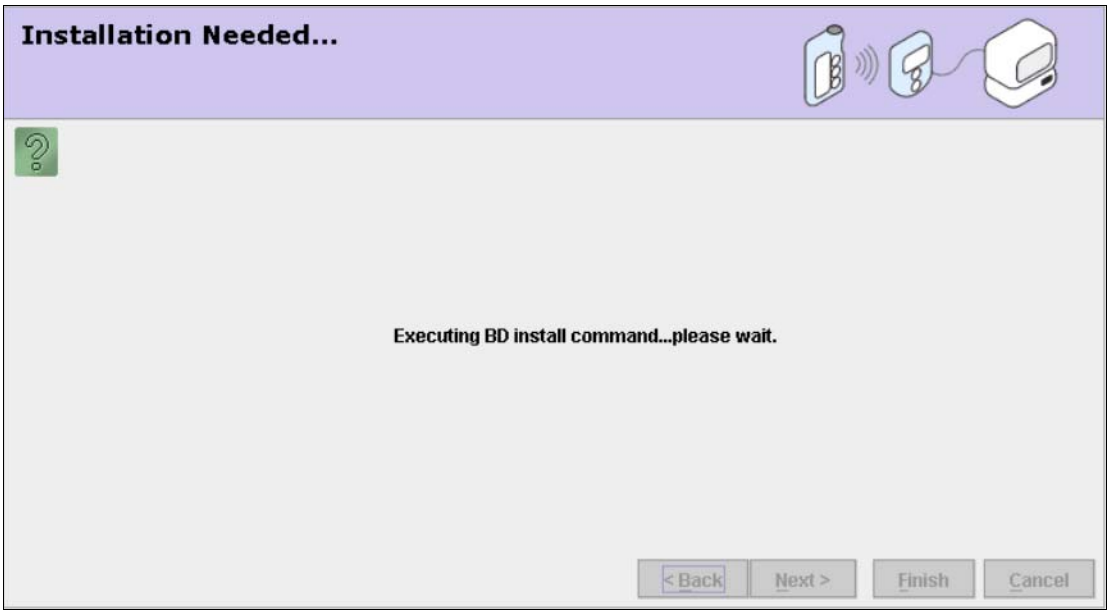
Installing the USB interface cable driver

Depending on the interface cable you are using, the system may require installation of the USB interface cable driver. During the first upload in which you select the USB interface cable as your communication device, the following screen may display. If so, take the steps that follow to download the required driver.

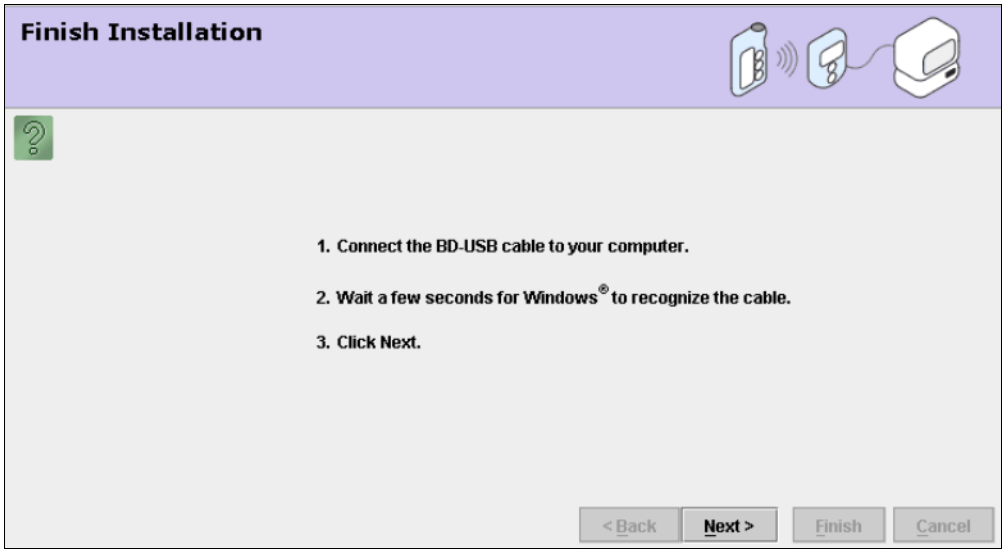

Installation Needed...
We need to install the BD-USB driver.
This driver is needed so the system can read data from your BD meter.
Please ensure the BD-USB cable is NOT connected to your computer before clicking Next.
< Back
Next >
Finish
Cancel

1. Make sure you do *not* have the USB interface cable connected to your PC, and click **Next >**.

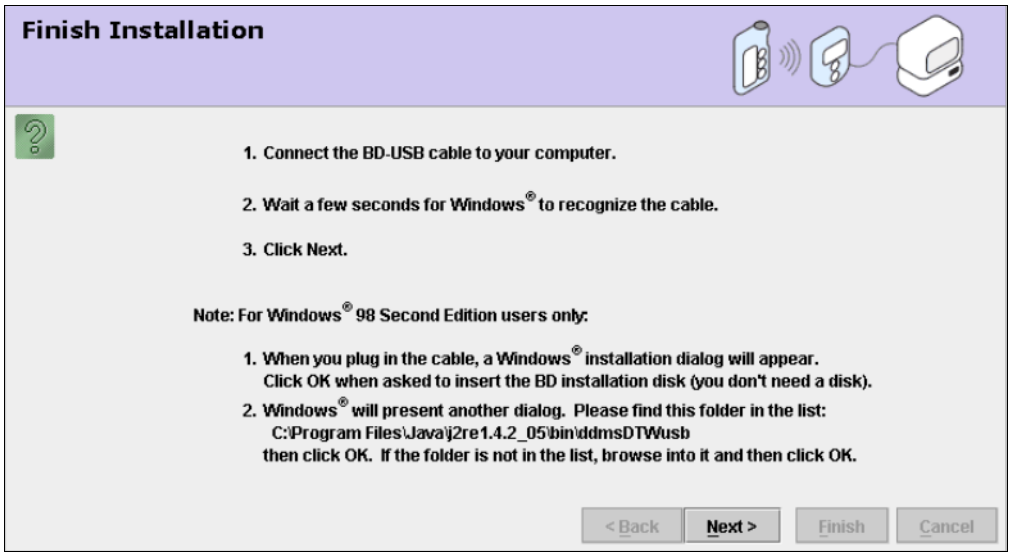
   The following screen displays:



2. Wait until one of the following two screens display. The screen you will see depends on your operating system.


Finish Installation
1. Connect the BD-USB cable to your computer.
2. Wait a few seconds for Windows® to recognize the cable.
3. Click Next.
< Back
Next >
Finish
Cancel

or


Finish Installation
1. Connect the BD-USB cable to your computer.
2. Wait a few seconds for Windows® to recognize the cable.
3. Click Next.
Note: For Windows® 98 Second Edition users only:
1. When you plug in the cable, a Windows® installation dialog will appear.
Click OK when asked to insert the BD installation disk (you don't need a disk).
2. Windows® will present another dialog. Please find this folder in the list:
C:\Program Files\Java\j2re1.4.2_05\bin\ddmsDTWusb
then click OK. If the folder is not in the list, browse into it and then click OK.
< Back
Next >
Finish
Cancel

3. Connect the USB interface cable to your computer, wait a few seconds, and click **Next >**.

   The installation is complete, unless your operating system is Windows 98. If so, see the next step.

4. If your operating system is Windows 98SE, you will need to follow the extra instructions shown on the screen above. The instructions are displayed as a note for Windows 98 Second Edition users only. They guide you through the additional installation dialog box that displays.

Chapter 6:
Logbook screen

- *Opening the Logbook screen*
- *Displaying logbook entries for a specific date*
- *Adding a logbook entry*
- *Editing a logbook entry*
- *Deleting a logbook entry*

The Logbook screen is where you can record events related to your diabetes therapy. Display this screen to view, add, edit or delete logbook entries. Your logbook information is included in many of the system reports.

Here are the types of logbook entries you can make:

- **Carbohydrates:** date, time and number of grams/exchanges of carbohydrates you consumed for a meal or snack.
- **Exercise:** date, time, duration and intensity level of your exercise.
- **HbA1c results:** date, time and results of your HbA1c test.
- **Infusion set change:** date and time you changed your infusion set.
- **Urine ketones:** date, time and results of your urine ketone test.

You can also add comments to provide details about your entries. For example, your comment for a carbohydrate entry might be "Dinner: pasta with meat sauce, salad and bread."

Opening the Logbook screen

1. Make sure you are logged in.
2. Click the

tab.

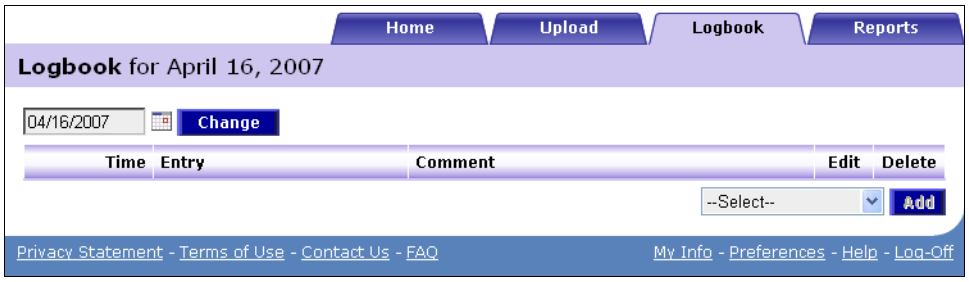
   or

   Click the

link on the Home screen.

   The Logbook screen is displayed.

A Logbook screen with no entries



Above is how the Logbook screen appears when you have not yet made any entries. Once you have made some logbook entries, the screen will look similar to the one below.

A Logbook screen with entries

Displaying logbook entries for a specific date

Once you have logbook entries for various dates, take the following steps to display the date you want.

1. Click the calendar next to the date field in the upper left of the Logbook screen. Select the date you want to see.

2. Click the **Change** button.

   Any logbook entries you have made for the date you selected in step 1 are displayed.

Adding a logbook entry

The following steps are for adding any type of logbook entry for any date and time.

1. If you want to select a different date for the new entries, click the calendar next to the date field, and click the **Change** button.

2. Click the drop-down arrow next to Add Entry. Select the type of entry you want to add from the list by clicking on it.

3. Click the **Add** button on the Logbook screen.

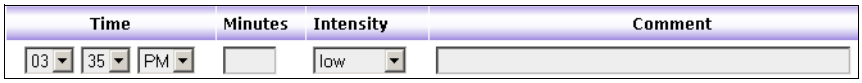
   The Add screen for the type of entry you selected is displayed.

Adding Carbohydrates entries

1. Click the drop-down arrows in the Time fields to set the time for the entry.
2. Type the number of carbohydrate grams or exchanges for the entry in the grams or exchanges field. (The range you can enter is 1 to 1,000 grams or 0.1 to 50 exchanges.)
3. Type details you want to include with the entry in the Comment field (e.g., type of food or meal).
4. Click the **Add** button.

   You are returned to the main Logbook screen where you can verify your new entry.

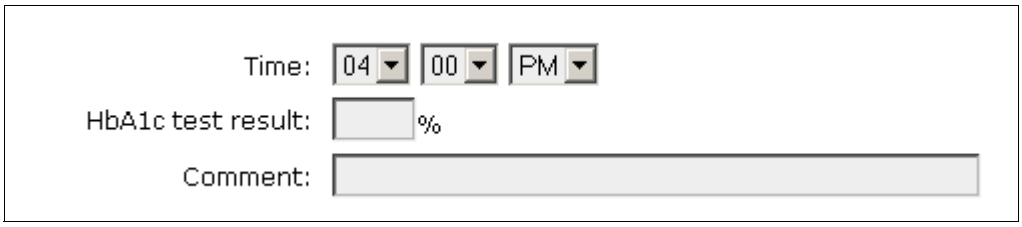
Adding Exercise entries



1. Click the drop-down arrows in the Time fields to set the time for the entry.
2. Type the number of minutes you exercised in the Minutes field. (The range you can enter is from 1 to 1440.)
3. Click the drop-down arrow in the Intensity field. Select low, medium or high to describe how hard you were exercising.
4. Type details you want to include with the entry in the Comment field (e.g., the kind of exercise or how you felt).
5. Click the **Add** button.

   You are returned to the main Logbook screen where you can verify your new entry.

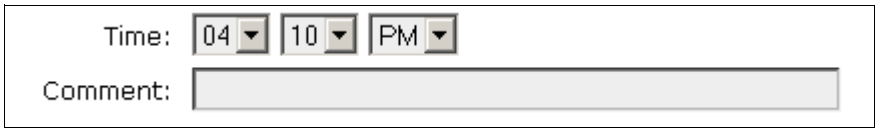
Adding HbA1c entries



1. Click the drop-down arrows in the Time fields to set the time for the entry.
2. Type the results of your HbA1c test in terms of percentage in the HbA1c test result field. But, do not type the '%' symbol. (The range you can enter is from 3.0 to 19.9.)
3. Type details you want to include with the entry in the Comment field (e.g., conditions relating to the test).
4. Click the **Add** button.

   You are returned to the main Logbook screen where you can verify your new entry.

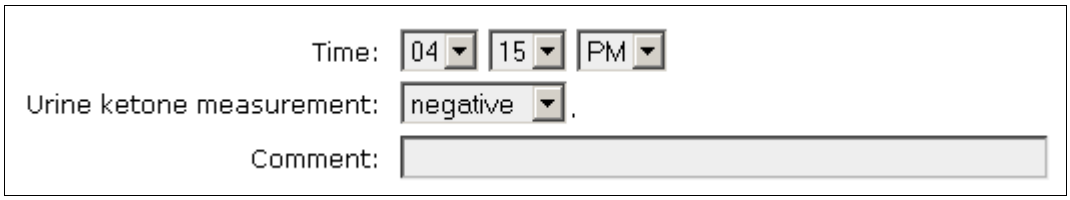
Adding Infusion Set Change entries



1. Click the drop-down arrows in the Time fields to set the time for the entry.
2. Type details you want to include with the entry in the Comment field (e.g., difficulties with the change).
3. Click the **Add** button.

   You are returned to the main Logbook screen where you can verify your new entry.

Adding Urine Ketone entries

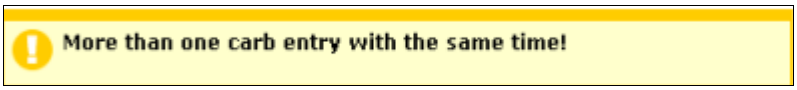


1. Click the drop-down arrows in the Time fields to set the time for the entry.
2. Click the drop-down arrow in the Urine ketone measurement field. Select negative, trace, small, moderate, or large—whichever best describes your results.
3. Type details you want to include with the entry in the Comment field (e.g., any action the results may require).
4. Click the **Add** button.

   You are returned to the main Logbook screen where you can verify your new entry.

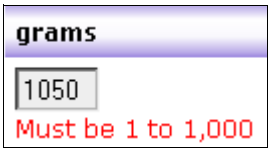
Logbook error messages

There are a few types of error messages you may receive if there is a problem with a logbook entry. The first type of message is a general type that describes such errors as a conflict between two entries. See the message in the following example:



If you see this kind of message, you need to take action according to the message. For example, if you received the above message you would find the two entries and decide which one to correct. See “Editing a logbook entry” on page 58.

The other type of error message happens if you type a number that is out of the acceptable range. A reminder of the acceptable range displays in red underneath the field with the incorrect information. See the message in the following example:

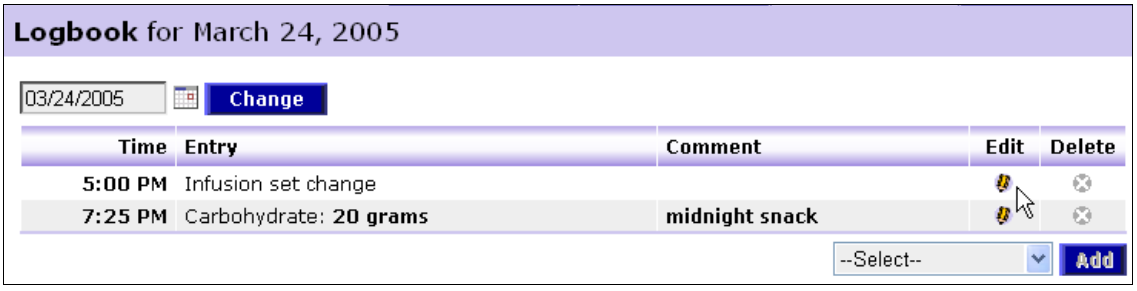


If you see this kind of message, change the number to be within the range and click the **Add** button.

Editing a logbook entry

You can go back and edit a logbook entry at any time by taking the following steps:

1. Make sure you are on the main Logbook screen. See "Opening the Logbook screen" on page 51 for instructions.
2. Select the date of the entry you want to change. See "Displaying logbook entries for a specific date" on page 53.
3. In the row containing the entry you want to edit, click the edit icon, as shown in the following picture.



The Update Entry screen displays.

4. Make the changes you want, using drop-down arrows or text-entry as appropriate for each field.
5. If you are ready to finalize your changes, click the **Update** button.

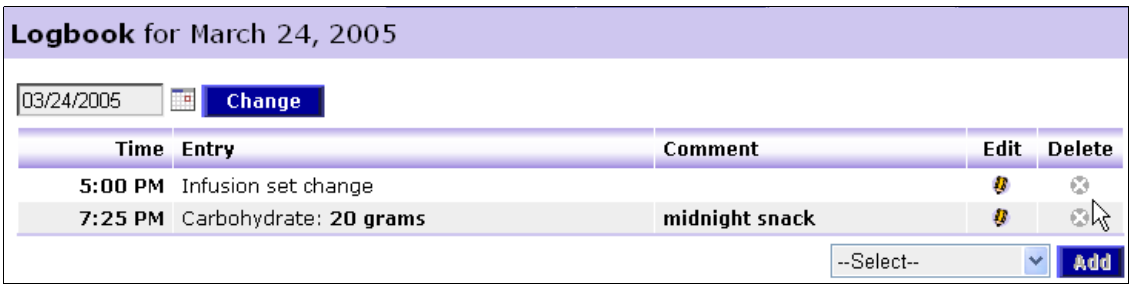
Your logbook is updated to reflect the changes you made.

Note: If you decide not to make any changes, you can click the Cancel *link instead of the Update button. You will return to the main Logbook screen without making any edits.*

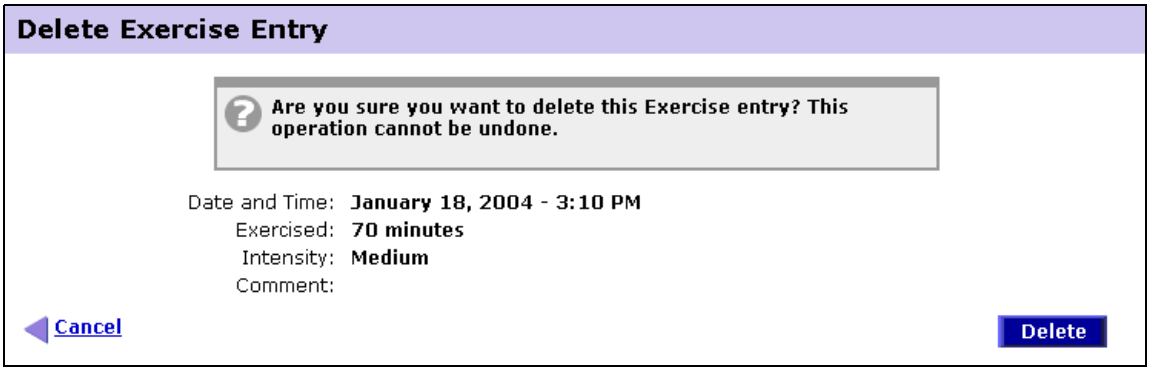
Deleting a logbook entry

If you decide to remove an entry from the logbook, take the following steps:

1. Make sure you are on the main Logbook screen. See "Opening the Logbook screen" on page 51 for instructions.
2. Select the date of the entry you want to delete. See "Displaying logbook entries for a specific date" on page 53.
3. In the row containing the entry you want to delete, click delete , as shown in the following picture.



The Delete entry screen displays:


Delete Exercise Entry
Are you sure you want to delete this Exercise entry? This operation cannot be undone.
Date and Time: January 18, 2004 - 3:10 PM
Exercised: 70 minutes
Intensity: Medium
Comment:
Cancel
Delete

4. If you are sure you want to delete the entry displayed, click the **Delete** button.

   You are returned to the main Logbook screen where you can verify the entry no longer appears in the logbook.

Note: *If you decide not to delete the entry displayed, click the* **Cancel** *link. You are returned to the Logbook screen without deleting the entry.*

Chapter 7:
Reports screen

- *Opening the Reports screen*
- *Generating a single report*
- *Generating multiple reports*
- *Saving a report*
- *Printing a report*
- *Understanding reports*
- *Special issues affecting report results*

The Reports screen allows you to display and print several different report types. The report type you select depends upon the data you want to display and the duration you want reported.

The list of report types you can select from varies depending on the device(s) you have uploaded.

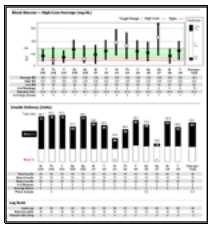
Device	Available Reports
Paradigm 515/715 pump	Quick View Summary Daily Summary Modal Day Periods Modal Day Hourly Trends Summary Data Table Device Settings

Device	Available Reports
Paradigm 522/722 pump	Quick View Summary Daily Summary Modal Day Periods Modal Day Hourly Trends Summary Data Table Device Settings Sensor Daily Overlay Sensor Weekly Logbook Sensor Overlay by Meal
Glucose Meter	Quick View Summary Daily Summary Data Table Modal Day Periods Modal Day Hourly Trends Summary
Guardian REAL-Time CGM System	Quick View Summary Daily Summary Trends Summary Data Table Device Settings Sensor Daily Overlay Sensor Weekly Logbook Sensor Overlay by Meal

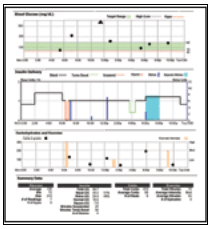
Reports are generated as PDF files. They are viewable in a separate window, and can be saved, printed or given to your healthcare professional. Each type of report available in this system is described below.

Note: *Some devices supported by this system may not be available in all countries where this system is approved for use. Certain report types only produce data if you are using a specific device.*

- **Quick View Summary:** shows graphical summaries of insulin as well as sensor and blood glucose for the two weeks you select. It also shows statistical and logbook information in tables. It is designed to assist your healthcare professional with a one-page summary of the most important information about your therapy.

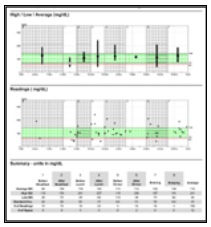


- **Daily Summary:** shows glucose readings, insulin delivered by the pump and important pump changes. It also shows carbohydrate and exercise entries recorded in the logbook for the day selected. It is designed to allow you to see a "graphical logbook" of the interaction of your pump with the other events in your day to assist you in using your pump for optimal control.

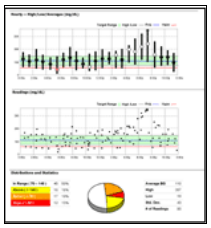


- **Data Table:** provides a table of information that covers a range of days. It includes meter and sensor glucose readings, insulin values, carbohydrates consumed, exercise duration, pump events, and miscellaneous information. It is intended to allow you to see all the collected data to help you understand other reports.

- **Modal Day Periods:** plots individual and average blood glucose readings for a range of days analyzed over a standard or typical day. The data is grouped over specified time periods of the day. It also displays the graph information in tabular form. It is designed to assist you in seeing how well your glucose stayed within your target range before and after meals, in the evening and during sleeping time.

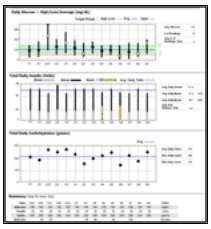


- **Modal Day Hourly:** plots individual and average hourly blood glucose readings for a range of days analyzed over a standard or typical day. The data is grouped by hour. It also displays a pie chart representing percentages of glucose readings at, above and below your target BG range, as well as hypo events. It is designed to assist you in seeing patterns in your blood glucose related to the time of the day, and also to provide an overall summary of your blood



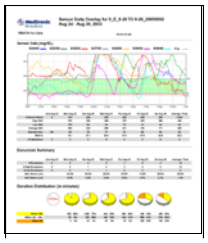
glucose readings.

- **Trends Summary:** graphs daily sensor and blood glucose readings, insulin delivery, and carbohydrate intake. These are shown as one, two, four or six day averages and totals, depending on the duration selected. It also displays the graphical information in tabular form. It is designed to show trends and interactions of this information. This is to assist you and your healthcare professional in understanding how well your therapy management is working. More long-term trends can be shown than with the Quick View Summary because the duration can be much longer.

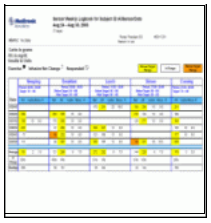


- **Device Settings:** displays pump or Guardian REAL-Time settings in effect for the date and time you select (e.g., Max Basal and Alert Mode). For pumps, it also graphs the active basal insulin pattern and any other basal insulin pattern that has been defined. It is designed to give you a complete report of your device settings at a particular point in time. This is to assist you in understanding other reports or to simply document your settings. You should not select a date or time for this report that is earlier than the first upload of this device or later than the last upload. Otherwise, the system reports the settings of the nearest device upload to the date and time you selected.

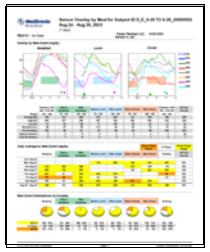
- **Sensor Daily Overlay:** provides seven days of sensor glucose tracings placed on top of one another to help show repeating patterns and differences from day to day. Each day's tracing has its own color. It includes a table with sensor glucose information about each day, such as highs, lows, averages, and number of calibrations. There are also tables and pie charts showing information about glucose control based on a target range, such as number and type of excursions.



- **Sensor Weekly Logbook:** presents sensor data and logbook information in the context of pre- and post-meal target ranges, as well as targets for evening and sleeping time periods. Time periods and target ranges used for this report come from the Advanced Intraday Periods Preferences you set on the Preferences screen. It is designed to help you to see impacts to your glucose control based on delivered Bolus insulin and external events documented in the system Logbook.



- **Sensor Overlay by Meal:** displays snapshots of seven days of sensor glucose tracings placed on top of one another during meal events— one hour before, during, and a time period after breakfast, lunch and dinner. It is intended to help show repeating patterns and differences during meal periods from day to day. Time periods and target ranges used for this report come from the Advanced Intraday Periods Preferences you set on the Preferences screen. Each day's tracing has its own color. It includes tables and pie charts with a description of glucose before and after meals and sleeping time, and information about keeping your glucose in target ranges before and after you eat.



WARNING: The reports produced by CareLink Personal are intended to be used together with the consultation of a healthcare professional familiar with the diagnosis and treatment of diabetes. Prior to any adjustment of insulin therapy, please review the report data with your healthcare professional. This is to ensure that the historical data from your pump, continuous glucose monitor, and meter is analyzed and interpreted by a professional trained in diabetes care.

The information included in these reports comes from your device uploads and from the logbook entries you have made. It is also affected by information you have provided on the Preference screen. For example, time formats, units of measurement, and BG target ranges in the reports are taken from your settings on the Preference screen, not from your pump.

On the main Reports screen, there are places to select date(s) and either time or duration. Please note that while a date applies to all types of reports, time and duration do not. The Time/Duration field will not display if it does not apply to a certain report type.

Opening the Reports screen

1. Make sure you are logged in.
2. Click the Reports tab.

   or

   Click the Generate Reports link on the Home screen.

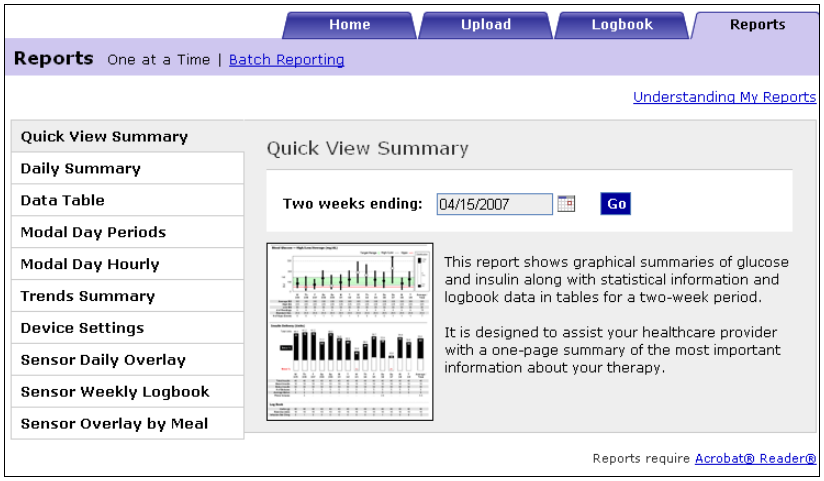
   The Reports screen displays.

Note: You must have a minimum of version 5.0 of Adobe Acrobat Reader on your computer in order to view reports. If you do not have Reader, or need to update your version, click on the Acrobat Reader link on the first Reports screen. This takes you to the Adobe Web site where you can download a free copy.

Generating a single report

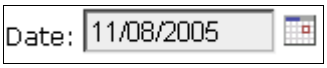
The following steps apply to generating reports one at a time. If you want to generate more than one report at a time, see "Generating multiple reports" on page 68.

1. Open the Reports screen. The following is displayed:


Home
Upload
Logbook
Reports
Reports One at a Time | Batch Reporting
Understanding My Reports
Quick View Summary
Daily Summary
Data Table
Modal Day Periods
Modal Day Hourly
Trends Summary
Device Settings
Sensor Daily Overlay
Sensor Weekly Logbook
Sensor Overlay by Meal
Quick View Summary
Two weeks ending: 04/15/2007
Go
This report shows graphical summaries of glucose and insulin along with statistical information and logbook data in tables for a two-week period.
It is designed to assist your healthcare provider with a one-page summary of the most important information about your therapy.
Reports require Acrobat® Reader®

2. From the list on the left, click the name of the report you want to generate (The selection varies according to the devices you have uploaded.)
3. Click in the Date field, and select the year, month and date for the report. This may be the date for the day you want to see reported (Pump Settings or

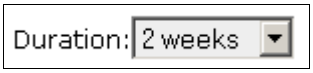
Daily Summary). Or, it may be the start date of the period you want to see reported.



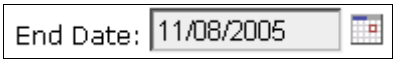
Note: *You should not select the current day as the end date for a duration report, such as Trend Summary. These reports require a full day of data to be meaningful.*

4. If there is no other field to set, go to Step 5. Otherwise, complete the part of this step that applies to the type of report you are generating:
   - **Time (only applies to Device Settings report):** Click the drop-down arrows in the Time fields at the top of the screen. Select the time for which you want to view pump setting data.

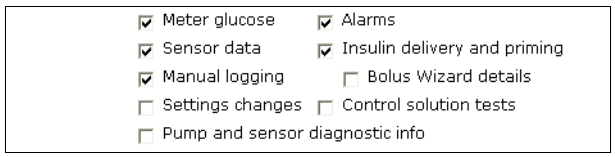
   - **Duration:** Click the drop-down arrow in the Duration field at the top of the screen. Select the length of time for which you want to generate report data.

   - **End:** Click in the End Date field at the top of the screen. Select the last date in the period you want to see reported (the end date).

   - **Data Table Input (only applies to Data Table report):** Check the check box next to each data category you want to display in the Data Table report.

5. Click the Go button.

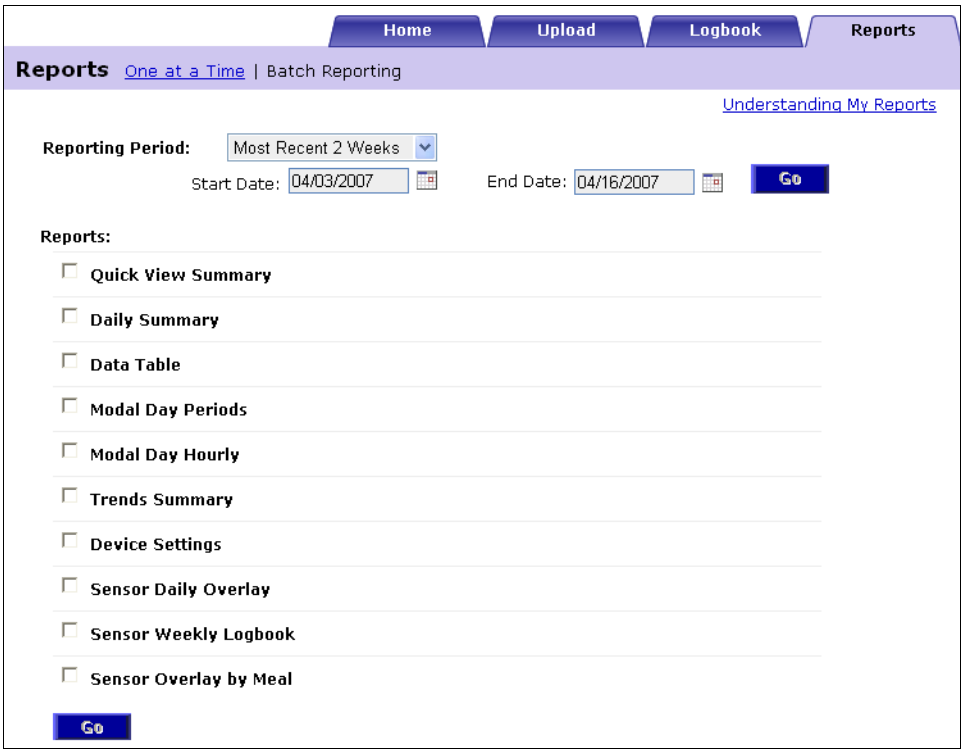
   Your report is generated and is displayed as a PDF file in a separate window.

Note: If you are generating a report with several weeks worth of data, the PDF will take longer to display.

Generating multiple reports

The following steps apply to generating more than one report at a time. If you want to generate only a single report, see "Generating a single report" on page 66.

1. Open the Reports screen.
2. Click Batch Reporting. The following is displayed:

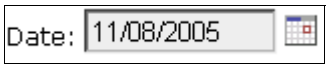


3. Select the check box for each report you want to generate (The selection varies according to the devices you have uploaded.)

4. You can set the reporting period for all the selected reports at once by filling in the fields for the *Reporting Period* at the top of the screen.

Or, you can set the reporting period for each report individually. The remaining steps guide you in setting reporting period information.

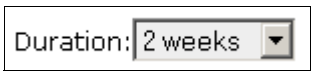
5. Click in the Date field, and select the year, month and date for the report. This may be the date for the day you want to see reported (Pump Settings or Daily Summary). Or, it may be the start date of the period you want to see reported.



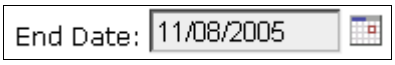
Note: *You should not select the current day as the end date for a duration report, such as Trend Summary. These reports require a full day of data to be meaningful.*

6. If there is no other field to set, go to Step 7. Otherwise, complete the part of this step that applies to the type of report you are generating:
   - **Time (only applies to Device Settings report):** Click the drop-down arrows in the Time fields. Select the time for which you want to view pump setting data.

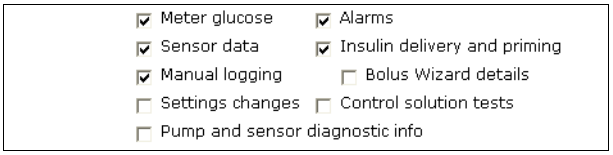
   - **Duration:** Click the drop-down arrow in the Duration field. Select the length of time for which you want to generate report data.



   - **End:** Click in the End Date field. Select the last date in the period you want to see reported (the end date).



- **Data Table Input (only applies to Data Table report):** Check the check box next to each data category you want to display in the Data Table report.



7. Click the Go button.

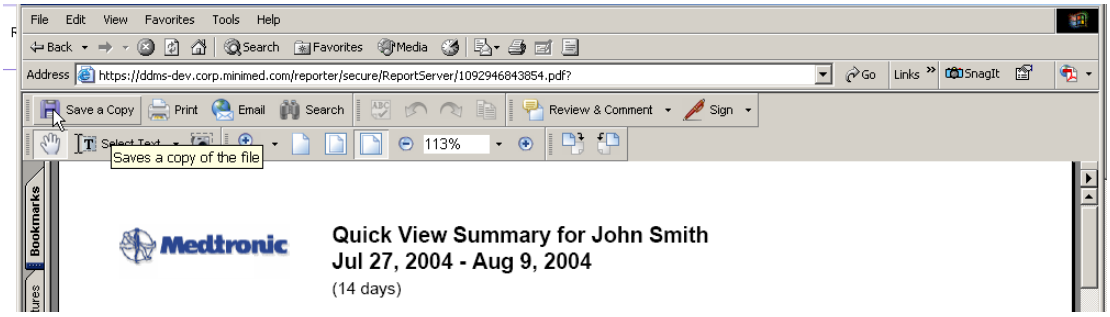
   Your reports are generated and are displayed as a PDF file in a separate window.

Note: *If you are generating reports with several weeks worth of data, the PDF will take longer to display.*

Saving a report

To save your report, take the following steps:

1. Once the report you generated is displayed, click (SAVE) on the Adobe Acrobat toolbar, as shown below.

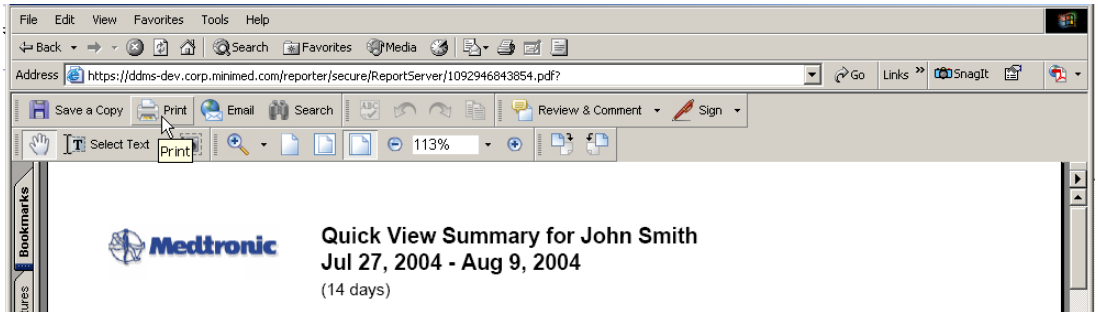

File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://ddms-dev.corp.minimed.com/reporter/secure/ReportServer/1092946843854.pdf?
Go Links SnagIt
Save a Copy Print Email Search Review & Comment Sign
113%
Saves a copy of the file
Bookmarks
Medtronic
Quick View Summary for John Smith
Jul 27, 2004 - Aug 9, 2004
(14 days)

2. In the Save As window, use the drop-down menu in the Save in field to select where to save. Type a name for the report in the File name field.
3. Click **Save**. Your report is saved.

Printing a report

To print your report, take the following steps:

1. Once the report you generated is displayed, click (PRINT) on the Adobe Acrobat toolbar, as shown below.

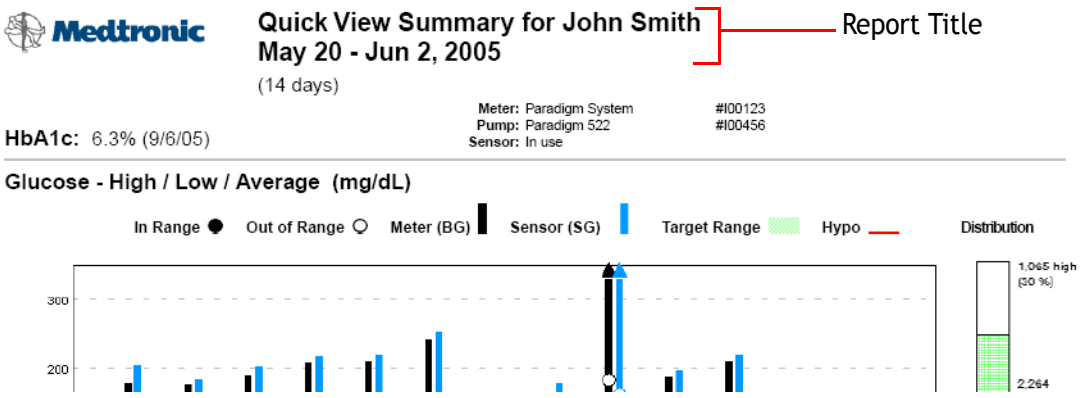


2. Make sure all the print options in the Print window are correct. This includes the printer you are sending it to and the number of copies to print.
3. Click **Print**.

Your report is printed out on the printer you selected.

Identifying the report title

The title of each report is displayed at the top of the first report page. The report title includes the type of report, the name or ID of the person the report is for, and the dates covered by the report. See the following graphic for an example of a report title.



Understanding reports

There is a link near the top right of the Reports screen, called Understanding My Reports . When you click this link, help text displays with information describing the report you generated. Also, where appropriate, it explains what you should be looking for in the results.

The following sections contain the information displayed when you click on the Understanding My Reports link for each different report.

Note: *The target glucose range displayed on various reports is determined by settings you enter on the Preferences screen, not by what you may have set on your pump. You set your BG Target Range High and BG Target Range Low preferences (with the help of your healthcare professional). Any glucose reading between these two settings is reported as "within target range." Readings above the high setting or below the low setting are reported as high or low excursion events.*

Quick View Summary report

This report provides you with a summary of the following for the 2 week period you select:

- glucose control (including averages, highs and lows, number of readings, and hypo events)
- insulin usage (including totals, percent basal and bolus, number and average of boluses, and priming information)
- carbohydrate intake (if entered in your logbook)
- exercise (if entered in your logbook)
- infusion set changes (if entered in your logbook).

If you are using a sensor-augmented pump or a Guardian REAL-Time device, this report may include glucose data captured by the sensor. This is in addition to blood glucose information captured by a glucose meter.

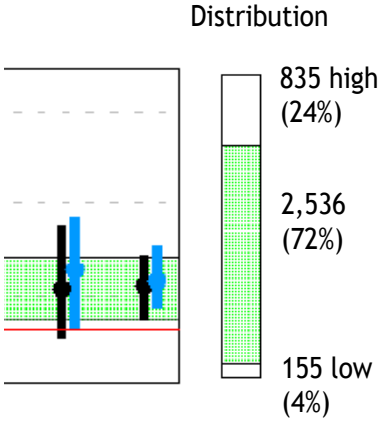
Note: *To see certain data from a Guardian REAL-Time CGM System reported, you must first have entered the data via the Capture Event feature. This is entered manually on the monitor. It includes meter BG reading, exercise duration, boluses given, and carbohydrates eaten. Refer to the Capture Event instructions in the "Guardian® REAL-Time Continuous Glucose Monitoring System User Guide."*

If you run the Quick View Summary report for the Guardian REAL-Time device only, this report will look slightly different than what is described below.

Things to look for

Glucose Distribution bar

To the right of the Glucose graph, there is a Distribution bar. It shows you the total number of glucose readings and the percentage you were above, below and within your target glucose range during the two week period. The green segment represents the percentage of the total readings that were within target range—this makes it easy to tell if you had more readings within target range or more readings that were either above it or below it. In the example on the right,



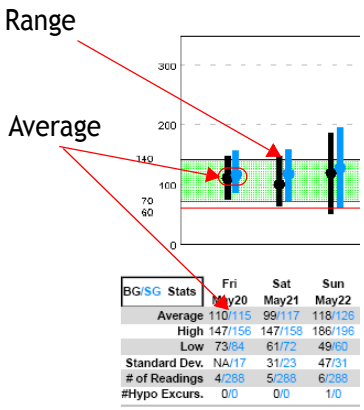
there were 835 glucose reading that were above the target range, which is 24 percent of the total readings. There were 2,536 glucose readings within the target range, which is 72 percent of the total readings. Finally, there were 155 glucose readings that were below the target range, which is four percent of the total readings. According to the Distribution bar on your report, what percentage of the time are you within your target range?

What it means

Ideally, you should mostly be in your target range. If you are not, check the modal day reports. Find out what times of the day you tend to be out of your range.

Glucose averages and ranges

On the Glucose graph, circles indicate your average glucose for the day. The vertical line, extending above and below each circle, shows your range of glucose values for the day. Do you have any days where the range is significantly large?



Are your basal rates set correctly? On the Glucose graph, you can check to see if your average daily glucose tends to be above your prescribed target range.

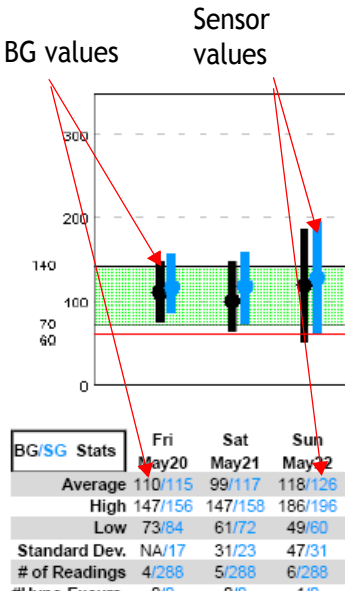
What it means

If the range is significant on any day, you may have had many potentially dangerous highs and lows that day. Check the Daily Summary Report for those days to get more detail about your glucose range.

If your glucose levels tend to be high daily, ask your healthcare professional if your basal rate is set too low.

BG and Sensor Values

On the Glucose graph, the circles, lines and statistics in black are Blood Glucose (BG) values from your BG meter. Circles, lines, and statistics in Blue are Sensor Glucose (SG) values from the sensor. If you are using a sensor-augmented pump you should see both BG and SG information. Do you have days where you thought you should have sensor data but don't?

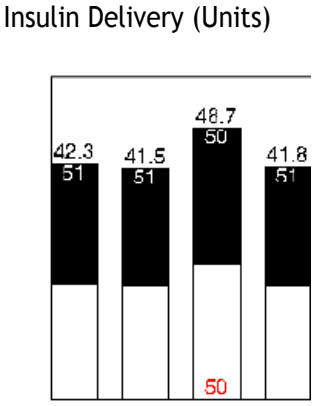


What it means

If you are not seeing sensor glucose data for days when you thought you were using a sensor, check the Sensor Data Table Report and the Daily Summary Report for those days to see more detail on your sensor data.

Daily insulin totals and type

The Insulin Delivery graph shows the total amount of insulin you received each day. It also shows the breakdown between basal and bolus insulin. Over a week, what is the relationship between the basal insulin as you are taking and the bolus insulin?

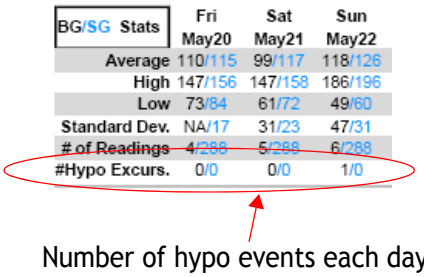


What it means

Many people find that they are close to a half basal and half bolus ratio on most days. However, ask your healthcare professional to assess your rates to determine what the relationship should be for you.

Hypo events

Check the statistics below the Glucose graph to see how many hypo events you had during this period.



BG/SG Stats	Fri May20	Sat May21	Sun May22
Average	110/115	99/117	118/126
High	147/156	147/158	186/196
Low	73/84	61/72	49/60
Standard Dev.	NA/17	31/23	47/31
# of Readings	4/288	5/288	6/288
#Hypo Excurs.	0/0	0/0	1/0

Number of hypo events each day

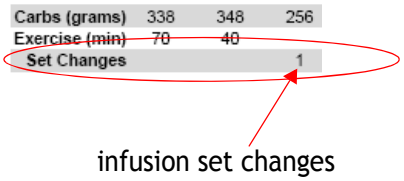
What it means

See if you have had one or more hypo events during the two-week period. If so, you might want to check the Daily Summary report for those days for more details.

Infusion set changes

At the bottom of the page, the last line of the Logbook table shows you when you changed your infusion set. Are you changing every three days? Check the Blood Glucose graph. Look at how your glucose control was the day before versus the day after you changed your infusion set.

Logbook



Carbs (grams)	338	348	256
Exercise (min)	70	40	
Set Changes			1

infusion set changes

What it means

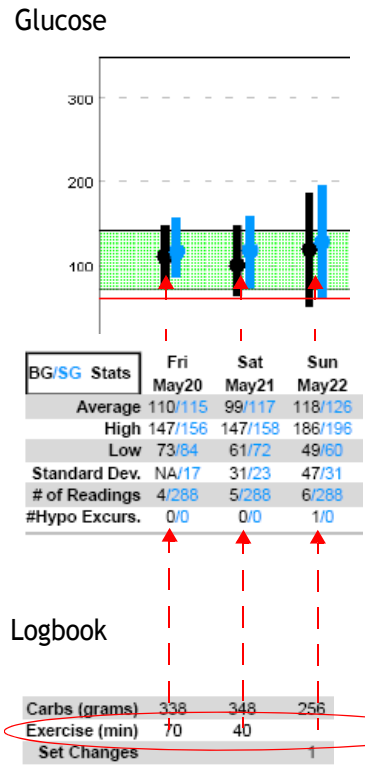
Sometimes, if you don't change your infusion set often enough, insulin will not be absorbed properly, or your insulin may not be working as well after being left at ambient temperatures for longer than recommended. See if you tend to have high blood glucose levels the day before you change your set. And then see if your glucose levels are back in your target range the day after your set change. Maybe try changing your infusion set more frequently to see if that helps you stay in better control.

Exercise

On the bottom of the page, in the Log Book table, note the days that you exercised. Did your exercise affect your glucose control (see the glucose graph and statistics for each day you exercised)?

What it means

When exercising, you may need less insulin. Suspending your pump, or using a temporary basal rate, may help you stay in better control while you are exercising.



Daily Summary report

This report centers around only one day—whatever day you have selected. It shows you three graphs:

- meter and sensor glucose readings
- insulin usage
- the carbohydrates you have eaten and your exercise (if you recorded these)

A table at the bottom summarizes the information displayed in the three graphs.

If you look down the page, you will see that on all three graphs, the time of day is aligned. So, looking from graph to graph, you see exactly what was happening at the same time for all the elements.

If you are using a sensor-augmented pump or Guardian REAL-Time device, this report will include any sensor glucose data available for the day.

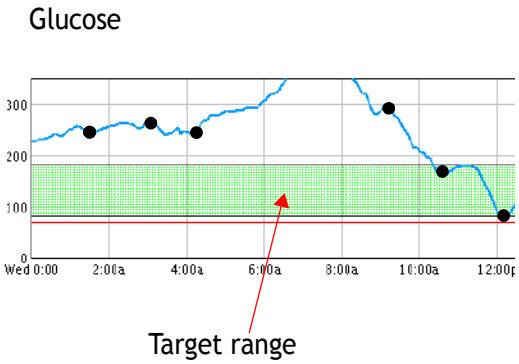
Note: *To see certain data from a Guardian REAL-Time CGM System reported, you must first have entered the data via the Capture Event feature. This is entered manually on the monitor. It includes meter BG reading, exercise duration, boluses given, and carbohydrates eaten. Refer to the Capture Event instructions in the "Guardian® REAL-Time Continuous Glucose Monitoring System User Guide."*

If you run the Quick View Summary report for the Guardian REAL-Time device only, this report will look slightly different than what is described below.

Things to look for

Blood glucose reading outside target range

Check the Glucose graph. Are any of your blood glucose readings outside of your target range? If so, how many?



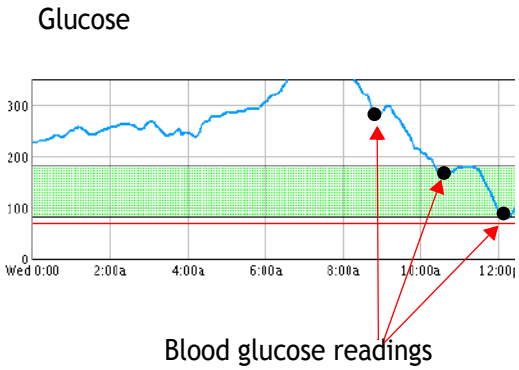
What it means

What else was occurring that day that might have caused you to be out of range?

- Check the Insulin Delivery and Carbohydrate and Exercise graphs. Look at how your boluses, basal rate and meals correlate to your blood glucose readings.
- Look at the Modal Day Glucose reports. See if there is a pattern to being out of your target range that time of day.
- Ask your healthcare professional about adjusting your basal rates to keep you within your target range. Click for more information.

Hyperglycemic and hypoglycemic readings

Are any of your blood glucose readings below 60 or above 240?

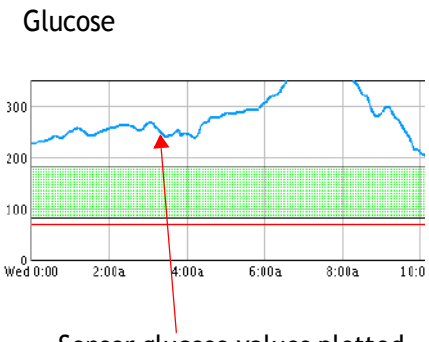


What it means

- Review what to do if you are hypoglycemic or hyperglycemic.
- Look at the Modal Day reports to see if there is a pattern to being this far out of your target range at a certain time of day.
- If a pattern appears, ask your healthcare professional if you are taking enough (or NOT enough) insulin at that time.
- Ask your healthcare professional about adjusting your basal rates to keep you within your target range. Click for more information.

Sensor glucose values

If you are on a sensor-augmented pump, do you see sensor glucose (SG) values plotted as a tracing line? The SG tracing line will give you a much clearer picture of your glucose control. Look to see that your sensor is being properly calibrated with BG values and that you do not have too many sensor alarms.



Sensor glucose values plotted as a tracing line

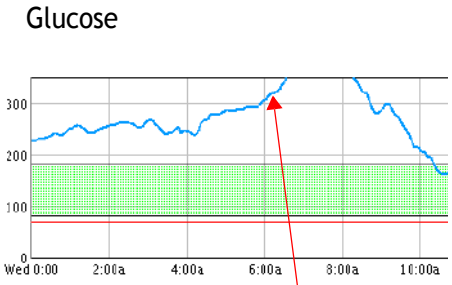
What it means

If you are not seeing sensor glucose data for a day when you thought you were using a sensor, or if there are many alarms or times with no data, check the Sensor Data Table Report to see more detail on your sensor events and alarms.

SG trace above or below target

Does the SG trace go outside your target range?

Does your SG go above or below your target range for long periods of time or many times during the day?



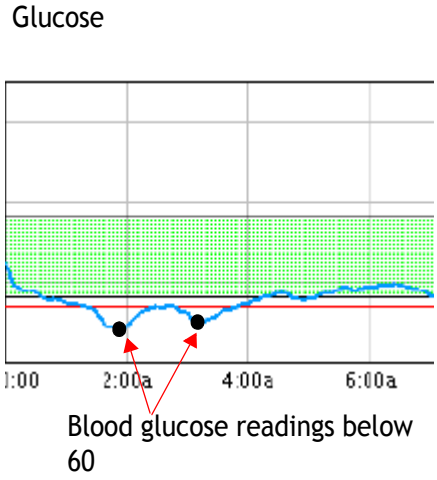
Sensor glucose tracing above target range

What it means

- What else was occurring that day that might have caused you to be out of range?
- Check the Insulin Delivery and Carbohydrate and Exercise graphs. Look at how your boluses, basal rate and meals correlate to your SG trace.
- Look at the various Modal and Overlay reports. See if there is a pattern to being out of your target range that time of day.

Glucose readings below 60 or above 240

Are any of your glucose readings below 60 or above 240?



What it means

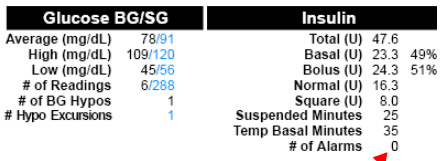
Review what to do if you are hypoglycemic or hyperglycemic.

- Your sensor-augmented pump has the ability to alert you when you are hypoglycemic or hyperglycemic. You may want to ensure that your pump's High and Low alarms are set correctly to alert you to these events.
- Review the Modal and Overlays reports to see if there is a pattern to being this far out of your target range at a certain time of day.
- If a pattern appears, ask your healthcare professional if you are taking enough (or NOT enough) insulin at that time.
- Be sure to ask your healthcare professional about the many features of your pump, such as basal rates and the Bolus Wizard (which includes insulin to carbohydrate ratios, insulin sensitivity and active insulin), which are designed to help keep you within your target range. Click for more information.

Insulin totals

In the Summary Data chart at the bottom of the page, look at your insulin column. You will see the total amount of insulin delivered that day. There are also percentages describing how much of that insulin was basal, and how much was bolus. What is the relationship between the percentage basal insulin as you are taking and the percentage bolus insulin?

Summary



Glucose BG/SG		Insulin		
Average (mg/dL)	78/91	Total (U)	47.6	
High (mg/dL)	109/120	Basal (U)	23.3	49%
Low (mg/dL)	45/56	Bolus (U)	24.3	51%
# of Readings	6/288	Normal (U)	16.3	
# of BG Hypos	1	Square (U)	8.0	
# Hypo Excursions	1	Suspended Minutes	25	
		Temp Basal Minutes	35	
		# of Alarms	0	

Insulin totals in the Summary Data chart

What it means

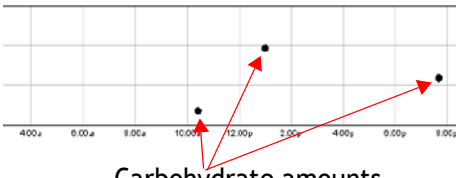
Many people find that they are close to a half basal and half bolus ratio on most days. However, ask your healthcare professional to assess your rates to determine what the relationship should be for you.

- Are you giving yourself one or more correction boluses during the day? If so, talk with your healthcare professional about possibly readjusting your insulin-to-carbohydrate or bolus amount.
- Do not make changes without consulting your healthcare professional first!

Carbohydrate amounts

If you made logbook entries, look at the Carbohydrates and Exercise graph. Are you eating approximately the same amount of carbohydrates at each meal?

Carbohydrates and Exercise



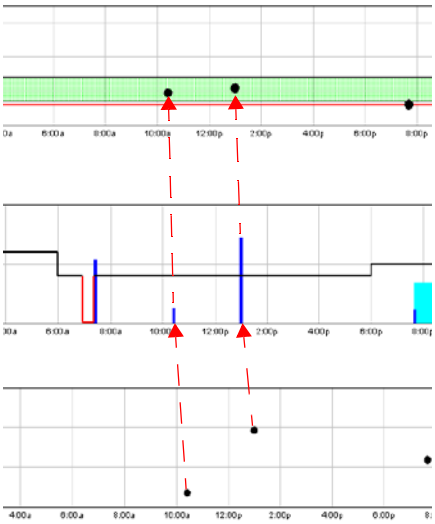
Carbohydrate amounts eaten during the day

What it means

Your insulin to carbohydrate ratio may need to be adjusted for different meals and time of day. Ask your healthcare professional what is right for you. Click to learn more about carbohydrate counting.

Comparing carbs, insulin and glucose readings

Look at each carbohydrate dot on the Carbohydrates and Exercise graph. Then look at the Insulin Delivery graph to see how much bolus insulin you gave for the amount of carbohydrates consumed. Now look up at the Glucose graph to see what your meter and/or sensor reading was after that meal. Do this for all carbohydrate dots on the graph. Do you notice that your glucose was too high or too low after a meal?

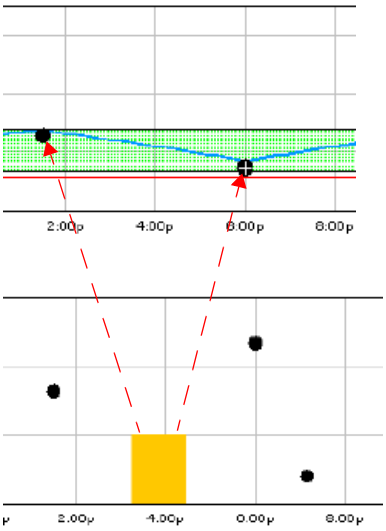


What it means

- Ask your healthcare professional if you are giving yourself enough insulin for the amount of carbohydrates you are eating.
- Ask your healthcare professional if you are giving yourself the correct type of bolus for the type of food eaten. For example, a slice of pizza might be better controlled with a Dual Wave Bolus. Click for information on the Dual Wave bolus.

Exercise and blood glucose readings

Did you exercise this day? If so, look up at your Blood Glucose graph to see what your meter and/or sensor reading was before and after you exercised. Was your blood glucose too high or too low?



What it means

Discuss with your healthcare professional your insulin requirements for exercise. Click to learn to better control your blood glucose levels by temporarily adjusting your basal rate.

Data Table report

This provides a table of information that covers a range of days. It includes the following information—plus more. This report is designed to show you all data that is useful for understanding and troubleshooting other reports. You choose the type of data you want to see reported.

- Meter glucose
- Sensor data
- Manual logging
- Settings changes
- Pumps and sensor diagnostics information
- Alarms
- Insulin delivery and priming
  - Bolus Wizard details
- Control solution tests

Modal Day Periods report

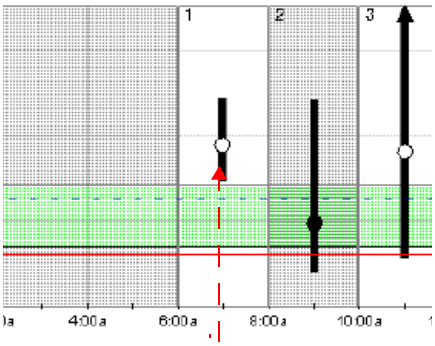
This report will show you glucose trends by periods of the day—typically periods revolving around meals. You can adjust the time range of each of these “periods” by going to the Intraday Periods Preferences part of the Preferences screen. In the report, you can learn what time periods of day you tend to be high, low or within your target range.

This report uses your meter values only, and does not use sensor glucose data for its graphs or table.

Things to look for

High/Low/Average graph

Look at the High/Low/Average graph. Is there a particular period of the day that you tend to be outside of your target range? If yes, review the information below.

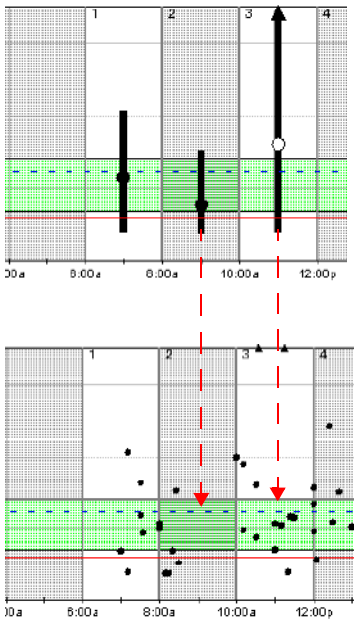


	1 Before Breakfast	2 After Breakfast
Average BG	189	97
High BG	242	241
Low BG	145	39
Standard Dev.	NA	58
# of Readings	4	8
# of Hypos	0	2

What it means

- Check the statistics at the bottom to see if you had a significant number of BG readings at that time. If not, you may want to start testing more during that time.
- Talk with your healthcare professional concerning changes to your insulin therapy to move you into target range for that period.
- Check the Standard Dev. (deviations) row. If there is a large number there, relative to your other Standard Dev. numbers, this indicates a lack of consistency in your readings for that period.

- Look at the second graph. Each dot on this graph represents one meter reading. See how many meter readings you had at the time when the first chart showed you high or low. If there are only one or two readings, you probably do not have enough meter readings to draw any real conclusions. But, you will want to remember to start checking your glucose at this time each day going forward. Then you can refer to this report to determine if there is a real trend.



- If there are enough meter readings, look at the Logbook Diary report to see if you eat or exercise regularly. Discuss with your healthcare professional why you tend to be high/low during that time of day. They can help you adjust your basal rates to put you back within range after exercise.
- If you tend to be high/low in the morning, you will probably want to know what is happening with your glucose while you are sleeping.

Modal Day Hourly report

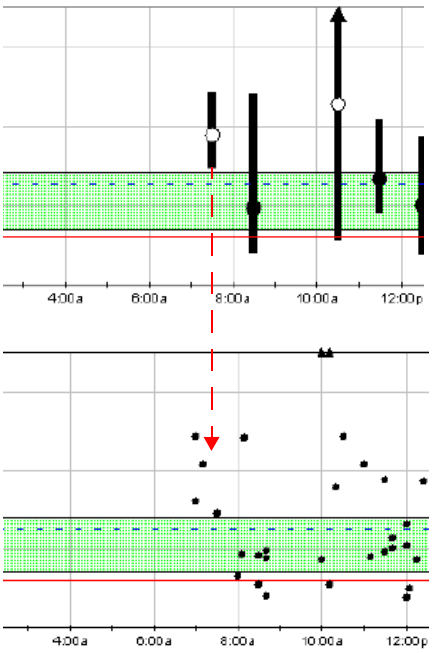
This report analyzes blood glucose trends by time of day. Over the range of days you specified, it averages blood glucose readings by hour. So, for example, in a two-week period, you can see what your blood glucose level was at 8:00 a.m., 10:00 p.m., etc. You can learn what times of day you tend to be high, low, or within your target BG range.

This report does not use sensor glucose data for its graphs or table.

Things to look for

High/Low/Average graph

Look at the High/Low/Averages graph. Is there a particular time of day that you tend to be outside of your target range?



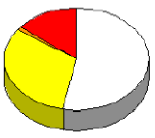
What it means

- First thing to do is to look at the second graph. Each dot on this graph represents one meter reading. See how many meter readings you had at the time when the first chart showed you high or low. If there are only one or two readings, you probably do not have enough meter readings to draw any real conclusions. But, you will want to remember to start checking your glucose at this time each day going forward. Then you can refer to this report to determine if there is a real trend.
- If there are enough meter readings, look at the Logbook Diary report to see if you eat or exercise regularly. Discuss with your healthcare professional why you tend to be high/low during that time of day. They can help you adjust your basal rates to put you back within range after exercise.
- If you tend to be high/low in the morning, you will probably want to know what is happening with your glucose while you are sleeping.

Distributions and Statistics chart

Look at the Distributions and Statistics pie chart on the bottom of the page. This chart will show how well you controlled your diabetes over the time range you specified. Click for information about how pump therapy can help you stay in range. If you are not in your target range, see the information below.

	Readings	Percent
In Range (70 - 140)	37	53%
Above (> 140)	23	32%
Below (60 - 69)	1	1%
Hypo (< 60)	10	14%
Total Readings	71	



What it means

- First, look to the left of the pie chart to see how many meter readings you had during that time. Check with you healthcare provider to see if you have enough data to draw any accurate conclusions.
- Look at the top graph to see what times of day are particularly troublesome for you. Discuss with your healthcare professional adjusting your basal rates and possibly your boluses to move you into target range. You may also want to work with your healthcare professional on fine-tuning your pump.
- If you are not on a pump, you might benefit from more intensive management. Click to read more about it.

Trends Summary report

This report shows you trends in your glucose control, insulin usage and carbohydrate intake. For whatever time period you specified (2 weeks – 12 weeks) you will see graphs with the following.

- Your average glucose reading for each day in that time period.
- Your total insulin usage for each day in that time period.
- The total number of carbohydrates you consumed for each day in that time period.

To the right of the graphs, you will see a summary of the graph data. This includes the number of meter readings you had, your average glucose reading, your average insulin per day, etc.

A summary table at the bottom of the report presents data for 14 different days. The interval at which the data is reported on this table varies according to the length of the reporting period:

- 2-week reporting period: every day
- 4-week reporting period: every 2nd day
- 8-week reporting period: every 4th day
- 12-week reporting period: every 6th day

If you are using a sensor-augmented pump or Guardian REAL-Time device, this report will include sensor glucose information in addition to blood glucose information.

Note: *To see certain data from a Guardian REAL-Time CGM System reported, you must first have entered the data via the Capture Event feature. This is entered manually on the monitor. It includes meter BG reading, exercise duration, boluses given, and carbohydrates eaten. Refer to the Capture Event*

instructions in the "Guardian® REAL-Time Continuous Glucose Monitoring System User Guide."

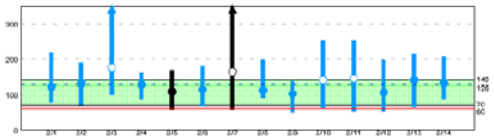
If you run the Quick View Summary report for the Guardian REAL-Time device only, this report will look slightly different than what is described below.

Things to look for

Daily Glucose graph

Check the Daily Glucose graph. Were there any days that your average glucose readings were out of your target range?

Glucose - High/Low/Average



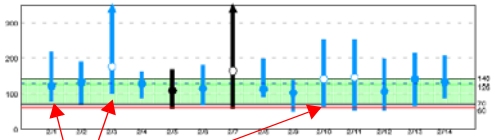
What it means

- First, try the following. If you've been looking at a two week range, try viewing 8 or 12 weeks to see if there are patterns to when you are out of range.
- If there is a pattern, what day of the week are you typically out of range? Does your lifestyle dramatically change each week on that particular day? (For example, do you usually sleep more and eat more on weekends?) Check the carbohydrate graph at the bottom of the page. See if there are days that you tend to eat more than others.
- Ask your healthcare professional if you have different insulin requirements for different days of the week. This might be based on the kinds of activities that you typically perform on those days. They might recommend using different basal rates for certain periods.
- If there is not a pattern, look back in your personal calendar. Were you sick that day? If so, you can work with your healthcare professional to determine your insulin requirements for days that you are sick. Program a temp basal into your pump for sick days.

Sensor data

On the Glucose graph, the circles, lines and statistics in black are Blood Glucose (BG) values from your BG meter. Circles, lines, and statistics in blue are Sensor Glucose (SG) values from the sensor. On days where you used a sensor, only the SG information is shown (in blue). Do you have days where you thought you should have sensor data but don't?

Glucose - High/Low/Average



Sensor data is in blue

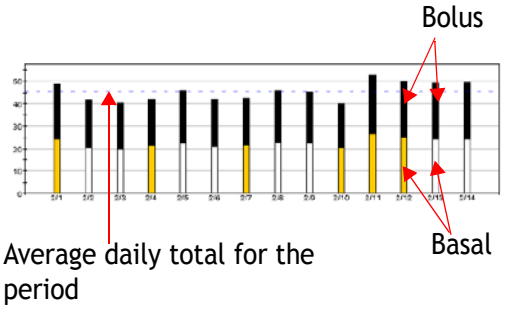
What it means

If you are not seeing sensor glucose data for days when you thought you were using a sensor, check the Sensor Data Table Report and the Daily Summary Report for those days to see more detail on your sensor data.

Total Daily Insulin graph

Check the Total Daily Insulin graph. Are there any days during which you took a lot more insulin than others? (The blue dotted horizontal line tells you what your average daily insulin usage is.)

Total Daily Insulin (Units)

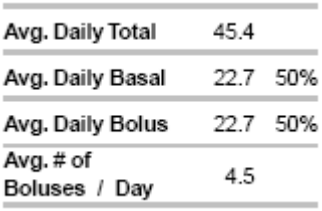


What it means

If so, look carefully at the breakdown between basal and bolus. For that particular day, did you use a lot more bolus insulin than basal insulin? If so, what was happening that day to cause you to need more insulin?

Daily insulin averages

Next to Total Daily Insulin, you will see some numbers showing you average basal insulin compared to average bolus insulin. On average, are you using about the same amount of bolus insulin as you are basal insulin each day? If no, review the information below.



Avg. Daily Total	45.4	
Avg. Daily Basal	22.7	50%
Avg. Daily Bolus	22.7	50%
Avg. # of Boluses / Day	4.5	

Next to the Total Daily Insulin graph

What it means

- Look carefully at the breakdown between basal and bolus. Many people find that they are close to a half basal and half bolus ratio on most days. However, ask your healthcare professional to assess your rates to determine what the relationship should be for you.
- Are you giving yourself one or more correction boluses during the day? If so, talk with your healthcare professional about possibly readjusting your insulin-to-carbohydrate or bolus amount.
- Consult with your healthcare professional to come up with basal rate testing to help you fine tune your basal rates. Do not make changes without consulting your healthcare professional first.

Device Settings report

You can see all other elements you have programmed into your pump or Guardian REAL-time device—alarm volume, the remote serial number, etc.

This report provides a helpful record of your device settings in case of settings loss. You can also protect device settings by using the Save Settings feature in the Utilities > User Settings menu on your pump or Guardian REAL-Time device. You may also want to consider using **ParadigmPAL™** which allows you to program and store pump settings on your PC. You can then quickly upload them to your pump from the PC.

The date and time you select for your Device Settings report affects the data in the report. See “Device Settings report date and time” on page 98 for more information.

Note: *For the pump, this report does not show actual insulin usage. It only displays the basal rates that have been programmed into the pump. It also shows which basal rate was active at the time of upload.*

Sensor Daily Overlay report

You choose the seven days of glucose tracings you want to see, and this report layers them on top of each other for comparison. Each day has a different color tracing so you can tell them apart.

Averages and totals across all days in the report are displayed in a table for statistical items such as Mean Absolute Difference (MAD) and Area Under Curve (AUC), excursion and duration data. In addition, pie charts show the duration of time above, below and within target range for each day.

To see BG values together with sensor data, use the Daily Summary report.

Note: *For definitions of the terms MAD and AUC, please refer to the* "Glossary" on page 116.

Things to look for

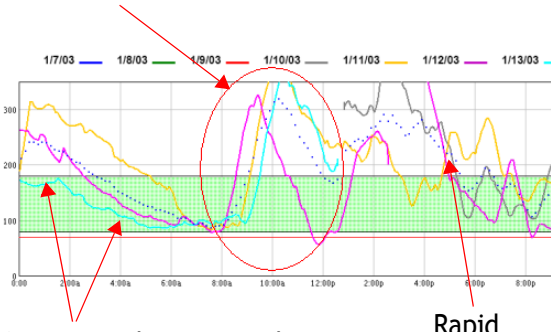
Repeating patterns

Check the Sensor Data graph at the top of the report that shows the sensor glucose tracings for 1 – 7 days. See if you can spot trends across the days.

What it means

If you see a trend toward overnight drops, it could indicate that your basal is too high or it is a drop off from a correction dose. Discuss this with your healthcare professional to determine if you need to make a basal or bolus adjustment.

Post prandial rise and fall after breakfast



Repeating drop overnight

Rapid drops

If you see repeated post prandial rise and fall after a meal, you should check your food-insulin factors. Discuss with your healthcare professional the need to accurately count carbohydrates and modify your bolus accordingly.

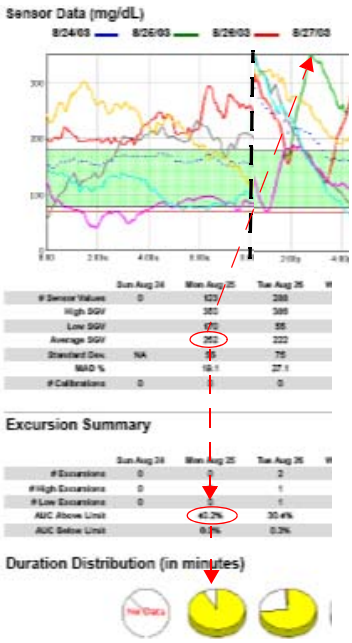
Repeated rapid drops can indicate a tendency to over-correct with insulin. Discuss with your healthcare professional how best to determine bolus amounts.

What else was going on

Use the information provided by each table and chart to help determine the larger picture of your daily glucose control.

What does it mean?

Look at the number and type of high and low excursions you had on a given day. Then compare that to the pie chart to see how much time was spent above, below and at target. The tracings at the top of the report show you what time of day excursions were occurring and whether they were occurring at about the same time each day. From all this, you can see patterns in your glucose control. Discuss any trends with your healthcare provider to decide if a change therapy should be made.



Sensor Weekly Logbook report

Use this tabular report to help understand the results of other sensor reports. This report shows you up to seven days of sensor glucose readings, insulin usage, carbohydrate intake, and related events from your logbook or pump for time periods that you specify (sleeping and eating).

The time periods and target ranges used for this report come from the Advanced Intraday Periods Preferences you set on the Preferences screen. See “Guidelines for setting Advanced Intraday Periods” on page 107 for more information.

The table lists the following:

- Sensor glucose readings for each day in that time period (including before and after meals).
- Carbohydrate intake for each day in that time period.
- Bolus insulin delivered each day in that time period.
- Events that may affect sensor readings, such as exercise, an infusion set change or pump suspension.

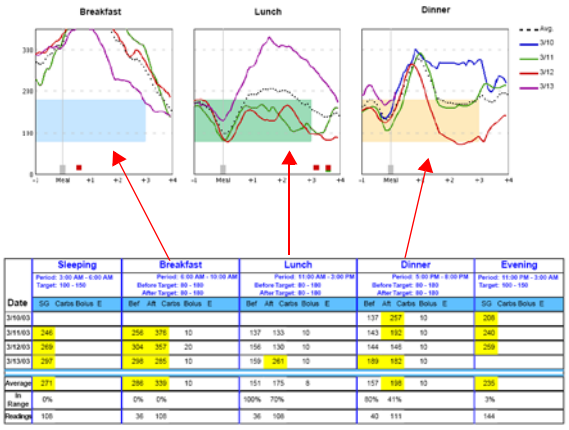
At the bottom of the tables, you will see a summary of the entire period. This includes the average sensor glucose reading over all days for each time period, the percent of sensor glucose readings over the days that were within your target range, and the total number of sensor glucose readings that were taken for all days for each time period.

Things to look for

Compare table to tracings

Create both a Sensor Overlay by Meal and a Sensor Weekly Logbook report for the same period. Use the tracings at the top of the Sensor Overlay by Meal report to spot trends and also the days when something very different happened. Use the table of the Sensor Weekly Logbook to see the details for what was going on during these trends and differences.

Tracings for Sensor Overlay by Meal report



Sensor Overlay by Meal report

Use this report to keep your glucose in range after eating.

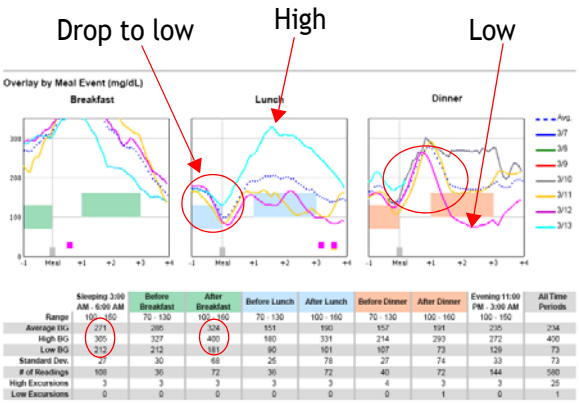
You choose up to seven days of glucose tracings you want to see. This report layers the tracings on top of each other so you can compare the days to each other in time blocks associated with Breakfast, Lunch and Dinner. Each day has a different color tracing so you can tell them apart.

Averages and totals across all days in the report are displayed in tables for each meal, evening and sleep time period. In addition, pie charts show the duration of time above, below and within target range for each time period.

The time periods and target ranges used for this report come from the Advanced Intraday Periods Preferences you set on the Preferences screen. See "Guidelines for setting Advanced Intraday Periods" on page 107 for more information.

Things to look for

Patterns and differences



Check the Overlay by Meal Event graphs at the top of the report. They show the sensor glucose tracings for each day during time periods associated with meals. You determine the length of time shown for each meal period. You also set the range of time for post-meal analysis, depending on when in the time period the meal falls. These settings are made in Advanced Intraday Periods Preferences section on the Preferences screen.

Also look at the table of totals and averages below the graphs. See if you can spot trends across the days. Do you see any big differences on certain days?

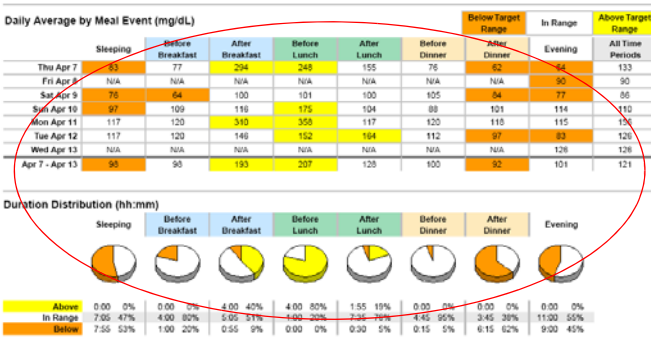
What does it mean?

The Average, High and Low sensor glucose listed in the table for the time of 3 a.m. to 6 a.m. indicate a high fasting glucose. The sensor readings for after breakfast go higher still and then drop. If you are seeing patterns like this, discuss your basal and bolus amounts with your healthcare provider. The pattern of high glucose after dinner followed by a drop indicates the need to better match your food and insulin.

The high glucose reading after lunch for the date of 3/13 and the low after dinner reading for the date of 3/12 are different than the readings for the other days. If you see this, try to determine what you were doing differently at this time on those days.

Averages and distribution

Check the Daily Average by Meal Event table and the Meal Event Distributions. Do you see a lot of yellow or orange?


Daily Average by Meal Event (mg/dL)
Below Target Range
In Range
Above Target Range
Sleeping
Before Breakfast
After Breakfast
Before Lunch
After Lunch
Before Dinner
After Dinner
Evening
All Time Periods
Thu Apr 7 83 77 294 248 155 76 62 64 133
Fri Apr 8 N/A N/A N/A N/A N/A N/A N/A 90 90
Sat Apr 9 76 64 100 101 100 105 84 77 86
Sun Apr 10 97 109 116 175 104 88 101 114 110
Mon Apr 11 117 120 310 358 117 120 116 115 156
Tue Apr 12 117 120 146 152 104 112 97 83 126
Wed Apr 13 N/A N/A N/A N/A N/A N/A N/A 126 126
Apr 7 - Apr 13 95 96 193 207 128 100 92 101 121
Duration Distribution (hh:mm)
Sleeping
Before Breakfast
After Breakfast
Before Lunch
After Lunch
Before Dinner
After Dinner
Evening
Above 0:00 0% 0:00 0% 4:00 40% 4:00 80% 1:55 19% 0:00 0% 0:00 0% 0:00 0%
In Range 7:05 47% 4:00 80% 5:05 51% 1:00 20% 7:35 76% 1:45 95% 3:45 38% 11:00 55%
Below 7:55 53% 1:00 20% 0:55 9% 0:00 0% 0:30 5% 0:15 5% 6:15 62% 9:00 45%

What does it mean?

Yellow on this table or on the pie charts indicates sensor glucose reading that are above your target range. Orange indicates readings below your target range. White on the chart represents the number of readings that were within target. If you are seeing a lot of yellow or orange, discuss your food and insulin matching with your healthcare provider.

Special issues affecting report results

The following sections discuss special system reporting conditions. Read them to get an idea of what report results to expect in these kinds of situations.

Device Settings report date and time

This table shows how the system uses date and time you select for Device Settings reports. It shows how that date and time compared to the upload ones affects report data:

Selected versus Upload date & time	What is reported...
You select a date and time that falls before the first recorded device upload, or after the last recorded upload.	The system reports the settings of the nearest device upload to the date and time you selected. It uses the upload it reports as the date and time of the report. It also notes the date and time you selected, and says settings not available for that time and date.
You select a date and time that falls between two overlapping device uploads on record.	The system creates a device settings report by starting with the first upload. It then adds all detected changes to the settings up to the date and time you requested. It reports your requested date and time as the date and time of the report.
You select a date and time that falls between two non-overlapping device uploads on record.	The system reports the settings of the earlier upload, and does not report any changes after that upload. It reports the earlier upload's date and time as the date and time of the report.

Changing device time affects report results

Keep in mind, if you change the time setting on your device, it may affect report results. There may be a short period of time in which report results show doubled-up or gapped events.

1. Determine if this corresponds to the approximate period in which you made a time setting change to your device. If so, you can ignore an anomaly in the report results.
2. You should not be using system reports to help make adjustments to your diabetes therapy based on a short period. The reports are designed to show more longer term trending.

Chapter 8:
My Info screen

- *Opening the My Info screen*
- *Changing the information on this screen*
- *Changing your password*
- *Changing your information sharing*

Use the My Info screen to view or change the information you provided during enrollment. You can make changes to reflect a new address, to change your security question, and so forth. You can also change your password from this screen.

Opening the My Info screen

1. Make sure you are logged in.
2. Click the My Info link.

The My Info screen displays.

Changing the information on this screen

1. Editing the fields

Make your changes to the information in the fields on this screen.

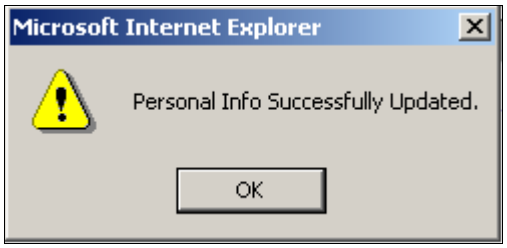
The following table describes the types of fields on the screen, and the action needed to change them:

Field	Action
Text Entry *Address 1: 1284 Agoura Road	Type your information over the text in the gray field to the right.
Pull Down Menu State/Province*: –Select–	Click the arrow to the right of the gray field to display a selection list. Highlight your choice and click it to replace what is in the gray field.
Check Boxes Forest County Medical Center, Franklin, MN	Click to select the check box or click to clear the check box. A check in the check box means you are selecting the option.

2. Submitting your changes

Make sure you are ready to submit the changes you have made, and have completed all required fields. Click UPDATE.

The following message displays, confirming that the system database was successfully updated with your new personal information. Click OK.



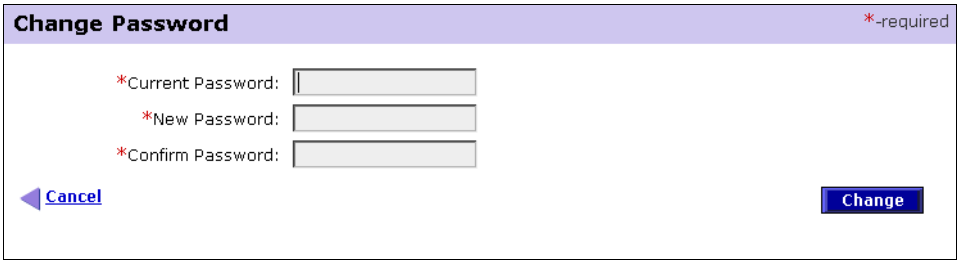
Note: *If you have not clicked the Update button, and would rather not change your information, select My Info again. Or, you can navigate to another page.*

Changing your password

If you want to change your password, go to the My Info screen and take the following steps:

1. Click the Change password link on the My Info screen.

   The Change Password screen is displayed.



2. In Current Password field, type in the password you are now using.
3. In the New Password field, type the password you would like to start using (from 4 to 20 characters).
4. Re-type your new password in the Confirm New Password field.
5. Click CHANGE.

   The following message displays, confirming that your new password has been saved to the system's database.

Note: If you change your mind about updating your password, and you have not yet clicked CHANGE, click Cancel *. This clears your changes and goes back to your previous password.*

Changing your information sharing

With your permission, clinics can link to your CareLink Personal account and obtain your device data to use in their therapy reports. The MyInfo screen is where you can manage data sharing with a clinic, including revoking permission from a clinic.

Note: Linking to your CareLink Personal account must be initiated from a clinic using the CareLink™ Pro application.

Allowing access to your data

1. Go to the *Information Sharing* section on the MyInfo screen.

Information Sharing
Share my treatment information with the following clinics:
The Diabetes Factory of Minnetonka Flats, Minnetonka Flats, MN
Forest County Medical Center, Franklin, MN

2. Click to select the check box next to the clinic you now want to have access to your CareLink Personal data.

   A verification message is displayed.

3. Click OK.

4. Click UPDATE on the MyInfo screen.

   This clinic is now allowed access to your CareLink Personal data.

Revoking access to your data

1. Go to *Information Sharing* section on the MyInfo screen.

Information Sharing
Share my treatment information with the following clinics:
The Diabetes Factory of Minnetonka Flats, Minnetonka Flats, MN
Forest County Medical Center, Franklin, MN

2. Click to clear the check box next to the clinic you no longer want to have access to your CareLink Personal data.

   A verification message is displayed.

3. Click OK.
4. Click UPDATE on the MyInfo screen.

   This clinic no longer has access to your CareLink Personal data. If they try to access it, they will receive notice that you have revoked their access.

Chapter 9: Preferences screen

- *Opening the Preferences screen*
- *Changing the information on this screen*
- *Guidelines for setting Advanced Intraday Periods*

You can use the Preferences screen to view or change information that affects how the data in reports is generated. It also affects how information is displayed on the system screens. For example, the Time Format you choose determines how time is displayed in logbook entries and report graphs. Also, you can use this screen to change the language in which everything in this system is displayed.

Opening the Preferences screen

1. Make sure you are logged in.
2. Click the Preferences link.

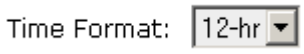
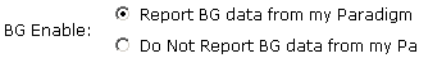
   The Preferences screen displays.

Changing the information on this screen

1. Editing the fields

1. Make your changes to the information in the fields on this screen.

   The following table describes the types of fields on the screen, and the action needed to change them:

Field	Action
Pull Down Menu 	Click the arrow to the right of the gray field to display a selection list. Highlight your choice and click it to replace what is in the gray field.
Text Entry 	Type your information over the text in the gray field to the right.
Radio Button Selection 	Click the radio button (circle) next to the option you want to select.

2. Understanding a field

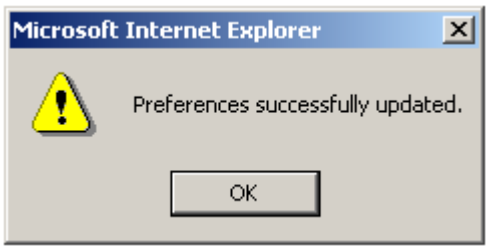
Some of the fields have question-mark buttons, , next to them. Click the question mark to bring up an information window about how to fill in the field.

When you are ready to close the information window, click the Close Window button or the in the upper right corner.

3. Submitting your updates

1. Make sure all of the information on the screen is set the way you want.
2. Click the **Update** button at the bottom of the screen.

   The following message displays, verifying that the system's database has been successfully updated with your changes.



Note: *If you have not clicked Update, and you would rather not change your information, click the Preferences link again. Or, navigate to another page.*

Guidelines for setting Advanced Intraday Periods

These fields allow you to enter all time periods and target ranges used by the Sensor Overlay by Meal Report and Sensor Weekly Logbook Report. It is important to set these to closely match your eating and sleeping habits.

The following information can also be accessed by clicking on the button in the Advanced Intraday periods section on the Preferences screen.

The SG Target Ranges specify a Before Meal and After Meal target range for each of the three meal periods. The overnight periods of Evening and Sleeping contain a single target range. You may enter a low value for a target range according to the following rules.

- If you have selected mg/dL as your BG units, the format for entering your target low value is xxx (e.g. 123). The range can be from 40 to the Target Range High - 2.
- If you selected mmol/L as your BG units, the format for entering your target low value is xx.x (e.g. 12.3). The range can be from 2.2 to the Target Range High - 0.1.

You may enter a high value for a target range according to the following rules.

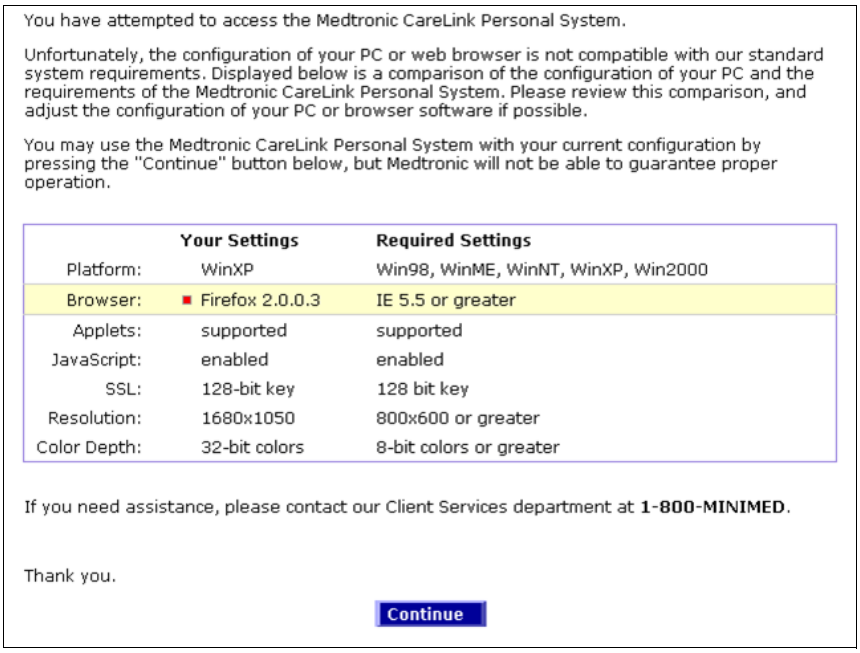
- If you have selected mg/dL as your BG units, the format for entering your target high value is xxx (e.g. 123). The range can be from 60 to 300.
- If you selected mmol/L as your BG units, the format for entering your target high value is xx.x (e.g. 12.3). The range can be from 3.3 to 16.6

You may set the Time Periods in any way that makes sense to you so long as they remain in chronological order. The duration of each period must be at least 0.5 hours. The end time of a period need not be the same as the start time of the next period, so gaps between periods may exist. The one exception to this rule is that the end of Evening must be the same as the start of Sleeping.

The Post-Meal Analysis window can extend up to 4.0 hours after a meal event. The duration of the analysis window must be at least 0.5 hours. The start time can range from 0.0 to 3.5 and the end time can range from 0.5 to 4.0.

Appendix A: Required system & browser settings

There are certain requirements that your PC and browser should meet to ensure proper operation of CareLink Personal. If you receive one of the following messages when you try to access CareLink Personal, check your PC system and browser settings, and respond as directed.



You have attempted to access the Medtronic CareLink Personal System.

Unfortunately, the configuration of your PC or web browser is not compatible with our standard system requirements. Displayed below is a comparison of the configuration of your PC and the requirements of the Medtronic CareLink Personal System. Please review this comparison, and adjust the configuration of your PC or browser software if possible.

You may use the Medtronic CareLink Personal System with your current configuration by pressing the "Continue" button below, but Medtronic will not be able to guarantee proper operation.

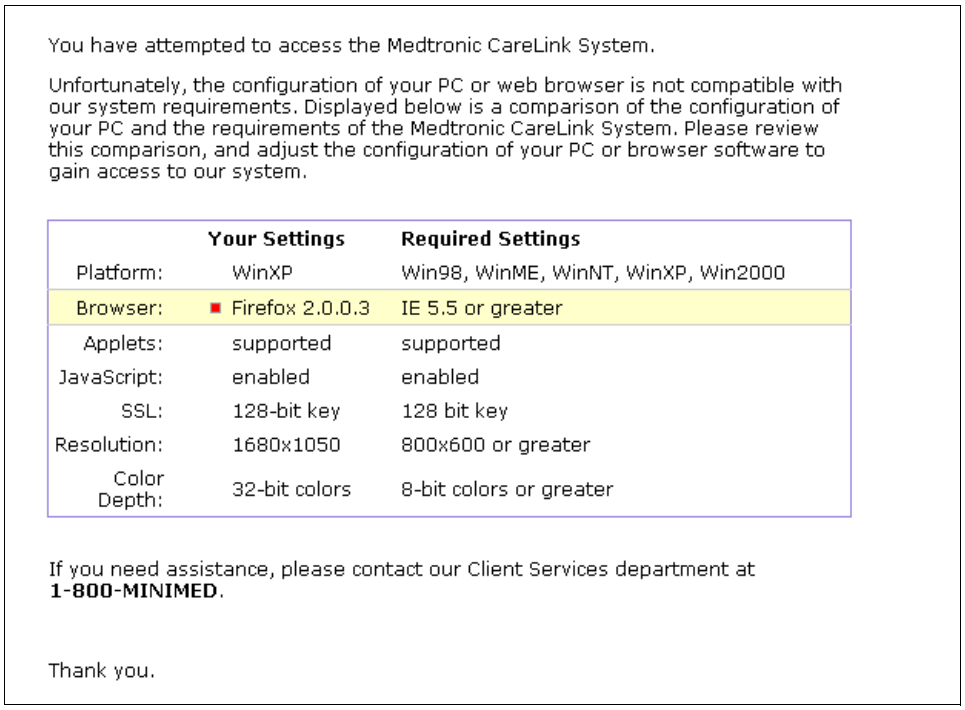
	Your Settings	Required Settings
Platform:	WinXP	Win98, WinME, WinNT, WinXP, Win2000
Browser:	Firefox 2.0.0.3	IE 5.5 or greater
Applets:	supported	supported
JavaScript:	enabled	enabled
SSL:	128-bit key	128 bit key
Resolution:	1680x1050	800x600 or greater
Color Depth:	32-bit colors	8-bit colors or greater

If you need assistance, please contact our Client Services department at **1-800-MINIMED**.

Thank you.

Continue

If you see the above screen, you are allowed to continue to CareLink Personal, although it is not recommended. To use CareLink Personal with your current settings, click CONTINUE. For help with your system setup, contact Medtronic (see “Assistance” on page 6).



You have attempted to access the Medtronic CareLink System.

Unfortunately, the configuration of your PC or web browser is not compatible with our system requirements. Displayed below is a comparison of the configuration of your PC and the requirements of the Medtronic CareLink System. Please review this comparison, and adjust the configuration of your PC or browser software to gain access to our system.

	Your Settings	Required Settings
Platform:	WinXP	Win98, WinME, WinNT, WinXP, Win2000
Browser:	Firefox 2.0.0.3	IE 5.5 or greater
Applets:	supported	supported
JavaScript:	enabled	enabled
SSL:	128-bit key	128 bit key
Resolution:	1680x1050	800x600 or greater
Color Depth:	32-bit colors	8-bit colors or greater

If you need assistance, please contact our Client Services department at **1-800-MINIMED**.

Thank you.

If you see the above screen, you will not be allowed to continue to CareLink Personal until your system is modified to meet the required settings. For help with your system setup, contact Medtronic (see "Assistance" on page 6).

Device uploads for Windows Vista™ users

If your PC is running the Windows Vista operating system, there are some additional steps to follow when you upload your device data to CareLink Personal. You only need to perform these steps for the first CareLink Personal device upload.

1. Open Internet Explorer, and navigate to **Tools > Internet Options**.
2. Click the Security tab.
3. Make sure the check box next to *Enable Protected Mode* is NOT checked.
4. Click OK.
5. Close Internet Explorer.
6. Navigate to **Start > All Programs**
7. Right-Click on the Internet Explorer menu item.
8. Select *Run as Administrator.*

9. When the User Account Control window is displayed, click ALLOW.
10. Logon to CareLink Personal.
11. Upload your device(s). See Chapter 5: Upload screen for upload instructions.
12. Once you have successfully uploaded a device, reset the Internet Explorer security settings:
    - From Internet Explorer, navigate to **Tools > Internet Options**.
    - Click the Security tab.
    - Check the box next to *Enable Protected Mode*.
    - Click OK
    - Close Internet Explorer.

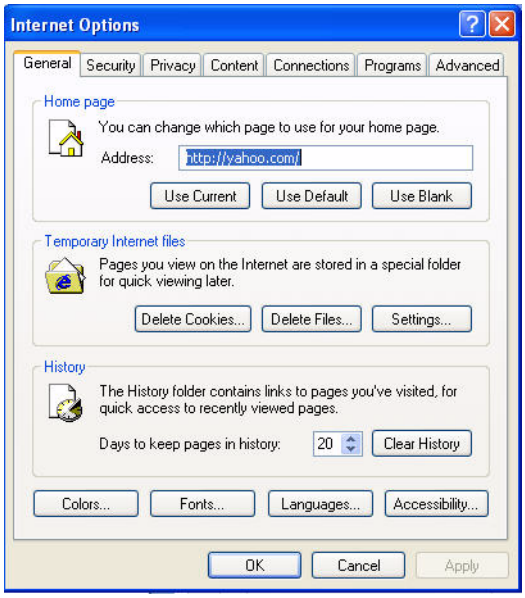
Note: *Once you complete an upload successfully, you do not need to repeat this process.*

Enabling Java scripting

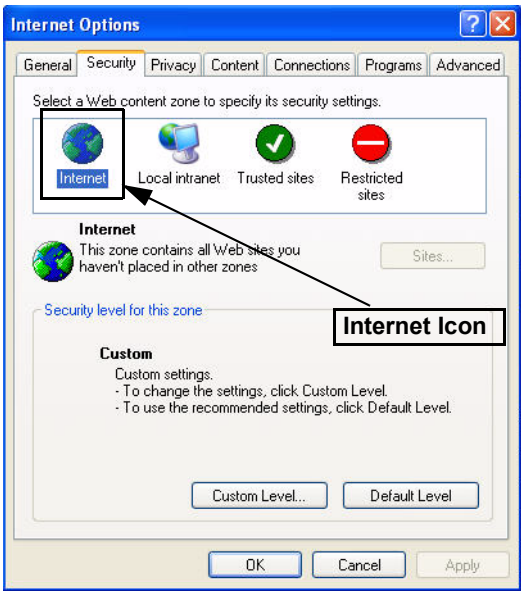
CareLink Personal uses Java scripting to perform some of its functions. If the Java Script setting for your Internet Explorer is disabled, you need to change this setting to enable scripting before you try to access the system.

Take the following steps if you need to change the Java Script setting to Enable or want to check the setting.

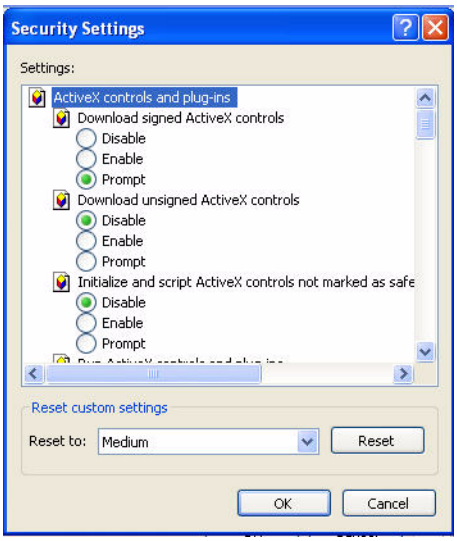
1. From the Internet Explorer menu options, select **Tools > Internet Options**. The Internet Options page is displayed.



2. Click the **Security** tab. The Security tab page is displayed.

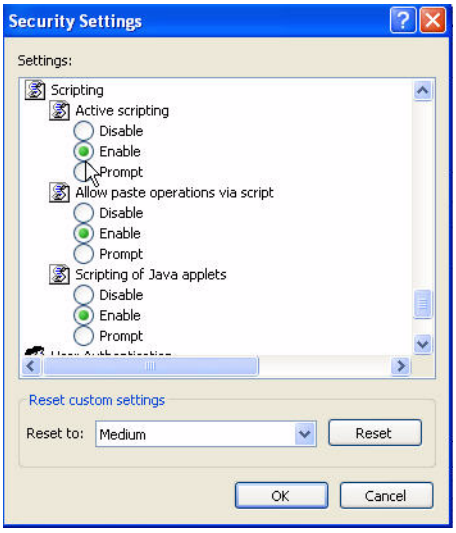


3. Select the **Internet** icon and click CUSTOM LEVEL ... The Security Settings page is displayed.



4. Use the scroll bar on the right of the Settings box to scroll down to **Active scripting**.

5. Underneath Active scripting, click the circle to the left of **Enable** so that a dot is displayed in the center of it like the following example shows:



6. Click OK.

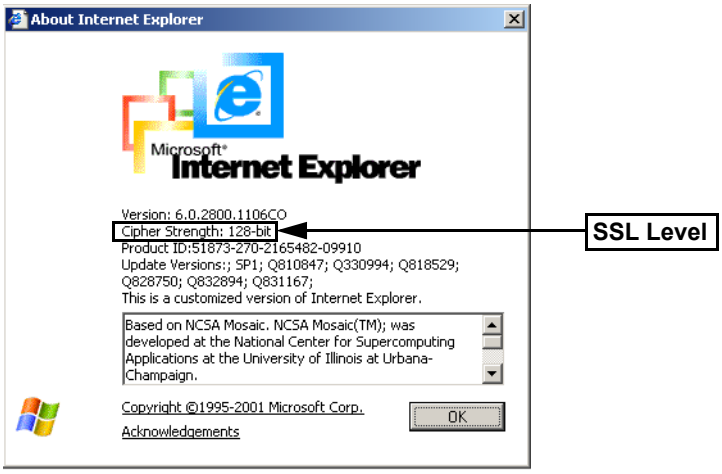
Secure Sockets Layer (SSL) and encryption

Secure Sockets Layer (SSL) refers to a security protocol designed to protect your Web browser sessions. CareLink Personal requires your browser to be enabled for SSL Version 3. It also requires support for 128-bit SSL encryption.

The version of Internet Explorer required by CareLink Personal (at a minimum version 5.5) has 128-bit encryption built in. So, if you are receiving an error message about your browser configuration, like the message shown at the beginning of this appendix, and it shows that you have an SSL setting of less than 128-bit key, you probably need to upgrade to the latest version of Internet Explorer.

First take the following steps to check the SSL on your current Internet Explorer version.

1. From the Internet Explorer menu options, select **Help > About Internet Explorer.**


About Internet Explorer
Microsoft
Internet Explorer
Version: 6.0.2800.1106CO
Cipher Strength: 128-bit
Product ID:51873-270-2165482-09910
Update Versions:; SP1; Q810847; Q330994; Q818529; Q828750; Q832894; Q831167;
This is a customized version of Internet Explorer.
Based on NCSA Mosaic. NCSA Mosaic(TM); was developed at the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign.
Copyright ©1995-2001 Microsoft Corp.
Acknowledgements
OK
SSL Level

2. The amount listed after **Cipher Strength** is the SSL. If this is less than 128-bit, see the next section for information about upgrading to the latest version of Internet Explorer.
3. When you have finished checking the SSL, click OK.

Upgrading Internet Explorer

If you need to upgrade your Internet Explorer to the latest version, you must to go to the Microsoft Internet Explorer Web site:

1. Click on the following link to go to the Microsoft Internet Explorer Web site: http://www.microsoft.com/windows/ie/default.asp
2. Click on the most recent version of Internet Explorer under the **Latest Downloads** column, and follow the download instructions.

Setting Internet Explorer for secure browsing

There is an Internet Explorer variable you need to have set so that if you log off of the system, but do not close Internet Explorer, someone cannot use the Explorer Back button, Back, to see any of the screens you had displayed before.

Take the following steps to check the setting, and, if need be, set it as follows:

1. Select **Tools > Internet Options** from the Internet Explorer main menu.
2. Click the Advanced tab.
3. Scroll down to the Security check items.
4. Make sure there is a check mark in the box next to "Do not save encrypted pages to disk." (If need be, click in the box to place a check mark in it.)

Security
Check for publisher's certificate revocation
Check for server certificate revocation (requires restart)
Check for signatures on downloaded programs
Do not save encrypted pages to disk
Empty Temporary Internet Files folder when browser is closed
Enable Integrated Windows Authentication (requires restart)
Enable Profile Assistant

5. Click OK.

Glossary

A

A1c

Glycosylated hemoglobin

A1c Test

Hemoglobin A1c test, used to interpret blood glucose level over a period of time.

Area Under the Curve (AUC)

Indicates the level of glucose control that is being reported by the sensor. It compliments excursion data. Excursion data indicates the frequency of highs or lows. AUC indicates the magnitude of events by showing how far out of control and for how long.

Audio bolus

The pump can be programmed so the user hears a beep when they select a bolus insulin amount (0.5 or 1.0 units) to be delivered. This is useful for situations when it is difficult to see the buttons on the pump.

Authenticate

A means by which a user verifies their identity by use of a username and password combination when entering a Web site area that contains sensitive patient information or data.

B

Basal insulin

An amount of insulin delivered automatically by an insulin pump based on preprogrammed profiles and personalized rates set in the pump. The pump delivers a daily pattern of insulin that typically covers "background" insulin needs during periods of fasting (i.e., overnight and between meals).

Basal patterns

The user can program up to three different basal rate patterns into their pump for the delivery of basal insulin: Standard, A, and B. For each pattern there is the option of setting up to 48 basal rates.

Basal profile

A basal rate with a start and stop time. The user can program several different profiles into their pump, each with a different basal rate, during a 24-hour period of time to achieve better glucose control.

Basal rate

The pump setting that provides a continuous infusion of insulin to keep the blood glucose stable between meals and during the night. Basal insulin mimics pancreatic insulin delivery—which meets all the body’s non-food related insulin needs.

BG

Blood Glucose

Bolus insulin

A dose of insulin given to cover an expected rise in blood glucose (such as the rise after a meal) or to lower a high blood glucose down to target range.

C

Cal Reminder

The pump will trigger a Meter BG By HH:MM alarm automatically every 12 hours, signaling that the current calibration value is no longer valid. The value of the Cal Reminder is the amount of time before the current calibration value expires by which the user wants to be reminded to calibrate. For example, if the Cal Reminder is set to 2 hours, the Meter BG By HH:MM alarm will occur 2 hours before calibration is required.

Carb ratio (carbohydrate ratio)

Used when counting carbohydrates in grams. The amount of carbohydrates covered by one unit of insulin. (Also see exch ratio.)

Carb units

The food entry when using the Bolus Wizard. Entered as (carbohydrate) grams or exchanges.

CareLink Personal

A therapy management Web application that allows uploading, logging and reporting of diabetes data via the Internet.

CH

Carbohydrate

Com-Station

A device used to download pass-through third-party meter data to the computer.

ComLink

A radio frequency (RF) transceiver device used to download Paradigm pump or Guardian REAL-Time CGM System data to the computer.

Correction bolus

The amount of insulin needed to return a high blood glucose level back down to target range.

Correction bolus factor

How much 1.0 unit of insulin will lower your blood glucose. This factor is used to calculate a correction bolus amount when your blood sugar is high.
(BG level) – (BG target) = X.
X ÷ (correction bolus factor) = correction bolus amount

D

Dual Wave™ bolus

Combination of a Normal bolus that is delivered immediately, then followed by a Square Wave bolus. The Square Wave portion is delivered evenly over a period of time.

E

Easy bolus

Method of delivery for a Normal bolus by using the Easy Bolus button on the pump.

Exch ratio (exchange ratio)

Used when counting carbohydrates as exchanges. The amount of insulin required to cover one (1) carbohydrate exchange. (Also see carb ratio.)

Express bolus

Method of delivery for any bolus type using the express bolus button on the pump.

F

Food bolus

A dose of insulin given to cover the expected rise in blood glucose that occurs after eating.

H

HbA1c

Glycosylated hemoglobin

HbA1c Test

Hemoglobin A1c test, used to interpret blood glucose level over a period of time.

High Glucose

The pump will alarm if the sensor indicates that the user's sensor glucose is at or above this value. You have the option to turn this feature on or off.

Hyperglycemic

Elevated blood glucose as seen by monitoring blood glucose levels with any or all of the following symptoms: nausea, vomiting, blurred vision, headache, gastric distress, frequent urination of large amounts, and lethargy.

Hypoglycemic

Low blood glucose as seen by monitoring blood glucose levels, with or without any or all of the following symptoms: excessive hunger, shaking or tremors, perspiration, "dancing" visions, headache, blurred speech, sudden mood swings or personality change.

I

IFU

Instructions for Use, also referred to as the User Guide.

Infusion set

The apparatus used for inserting and securing a cannula below the skin and transporting insulin to the insertion site via tubing from the pump.

Insulin concentration

The concentration or type of insulin the doctor has prescribed for the user. This affects the rate of insulin the pump delivers. If the user's insulin concentration changes, the basal profiles, and the maximum basal and bolus rates must be reprogrammed in the pump.

Insulin sensitivity

The amount that your blood glucose (BG) level is reduced by one unit of insulin. (Bolus Wizard data).

ISIG

Sensor values that indicate whether the transmitter electronics are working properly. If you see an ISIG value that is less than 24.00 nA or more than 29.00 nA,

call for product assistance. It may be time to replace your transmitter. ISIG values are displayed in the Data Table report, next to sensor glucose values.

K

Ketone test

Ketone is a waste product that is produced when the body is forced to burn body fat instead of glucose for energy. It may be a sign of lack of insulin in the body. The Ketone test measures the amount of ketone concentrated in the blood or urine.

L

Link

To turn on and setup the meter option that allows the pump to receive BG readings from the Paradigm Link meter.

It is also used in this system to refer to hypertext links. When clicked on, hypertext links take you to another place in the system or to another Web site.

Low Glucose

The pump will alarm if the sensor indicates that the user's sensor glucose is at or below this value. You have the option to turn this feature on or off.

Low reservoir warning

Programmable warning that notifies you with an alert when either a specified number of units remain in the reservoir of your pump, or a specified amount of time remains before the reservoir will be empty.

M

Manual bolus

Optional item available in the BOLUS MENU when Bolus Wizard is active. One method of programming a bolus without Bolus Wizard.

Max basal insulin

The maximum amount of basal insulin that the pump will deliver at one time. (set by the user).

Max bolus

The maximum amount of bolus insulin that the pump will deliver at one time. (set by the user).

Mean Absolute Difference (MAD)

Represents the level of accuracy in calibration of the sensor to meter readings. The lower this number, the greater the calibration accuracy. MAD is calculated by taking the difference between closely occurring pairs of SG and meter readings, dividing by the meter reading and then averaging across all pairs.

Meter

The Paradigm Link Blood Glucose Monitor Powered by BD Logic™ Technology (Paradigm Link meter). Your pump can be programmed to receive your BG readings from this meter.

This word is also used to refer to other supported third-party glucose meters.

Meter option

Feature that allows the pump to receive BG readings from the Paradigm Link meter.

N

Normal bolus

An immediate delivery of a specified unit amount of insulin.

Now

The “Normal” portion of a Dual Wave bolus. The now portion delivers immediately and is then followed by the Square portion.

P

Pattern feature

Extended pump feature that allows you to program optional basals (Pattern A, Pattern B) that support activities that are not a part of your day-to-day routine, but are usual in your lifestyle. Such activities could be a sport that you do once a week or a change in your sleep pattern over the weekend.

Pattern, standard

Your normal basal that supports your usual day-to-day activity. When the Patterns feature is off, the pump uses your standard (basal) pattern.

R

RF

Radio frequency (RF).

S

Square Wave™ bolus

Bolus delivered evenly over a specified time period (30 minutes to 8 hours).

Square Wave portion

(Sq) The second part of a Dual Wave bolus. The Square Wave portion delivers evenly over a period of time after the NOW portion delivers.

Step

Measurement of insulin that you set and use for Easy Bolus delivery.

Suspend

Function on the pump that stops all insulin delivery. Any current bolus and/or prime deliveries are canceled. The basal delivery is paused until restarted.

T

Temp

Temporary

Temp basal (tmp basal)

Temporary one-time basal insulin with a specified amount and duration. Used to support insulin needs for special activities or conditions that are not part of the normal daily routine.

Transmtr ID

The serial number of the transmitter currently in use.

U

µL

micro liter

Upload

The process of transferring diabetes device data to the CareLink Personal server.

User

The registered person.

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